



Faculty of Medicine Comenius University in Bratislava, Slovakia





The mission of the Faculty

The main priority of the Faculty of Medicine, Comenius University in Bratislava is to educate future physicians who understand their profession as a mission. The Faculty is, therefore, committed as a teaching base providing high quality knowledge on up to date levels of medical science and as an emerging institution shaping the moral and personal profiles of their graduates. Study programs of general medicine and dentistry are offered either in Slovak or in English.

The role of the Faculty of Medicine in Bratislava is to provide an undergraduate general medical education as well as postgraduate education through courses in specialized studies in the health professions, training courses, and doctoral studies. The Faculty is therefore an institution of lifelong medical education. The school's curative-preventive approach enables application of theoretical and practical knowledge in everyday medical practice, which significantly exceed the national, and in some areas also the European average. In addition, the Faculty is a base for basic and clinical research that is closely related to education process. Training of new scientists takes the form of doctoral studies.

The Faculty of Medicine in Bratislava follows new trends in modern education in medicine (e.g. education on simulators). The key activities of the Faculty includes also improving the quality of scientific output and doctoral studies, maintaining the number of foreign students, increasing the share of grant funds in the budget, and improving the facilities.

Prof. Juraj Šteňo, MD, DrSc.

Dean of the Faculty of Medicine, Comenius University in Bratislava



Basic study information

High quality education of medical students is main point of mission of the Faculty of Medicine, Comenius University in Bratislava. Currently, the Faculty offers two main undergraduate study programmes: General Medicine and Dental Medicine both a six year day-time doctoral study in Slovak or in English languages.

The standard course of study lasts six years (12 semesters). Each academic year starts in September and lasts till the end of August of the following year. The academic year is divided into two semesters, winter semester (spread over September till February) and summer semester (spread over February till August). After passing the state examination the graduate is conferred the degree MUDr. – *Medicinae Universae Doctor* (Doctor of Medicine) or MDDr. – *Medicinae Dentale Doctor* (Doctor of Dentistry) respectively.

Since the academic year 2001/2002 the credit system has been introduced that is compatible with the European Credit Transfer System (ECTS). Courses during the first to third year provide theoretical and pre-clinical lectures, labs and practical classes, the remainder of the fourth to sixth year include diverse clinical experiences. Courses of General Medicine and Dentistry are held in more than 50 theoretical and clinical institutes and departments.

The main aim of Faculty of Medicine, Comenius University in Bratislava is pedagogical and educational process, scientific and research activities and curative and preventive treatment. At the beginning of its existence, students were trained in so-called clinical subjects and later in theoretical subjects. Faculty prepared over 17 000 physicians who are either from Slovakia or from other European states, Asia, Africa and America. Demanding aims of the Faculty are provided by institutes, hospitals, special facilities in close cooperation with teaching hospitals and further health-service institutions.

The graduates of the Faculty can continue in their research in postgraduate training in an appropriate department leading to the award of PhD degree. Faculty's professional medical journal Bratislava Medical Journal, founded in 1921, is also an important source of information and stimuli for scientific, clinical, and experimental research.

Since 1990, the Bratislava Association of Medical Students (BSM) has been working at the Faculty in the field of international cooperation and scientific information.



Entrance examination

Place and dates

Entrance examination (EE) will be realized in the form of on-line tests from your home place.

- registration starts from March 1, 2021
- deadline for submitting required documents: July 9, 2021
- EE dates: Study programme General Medicine: August 10, 2021 Study programme Dentistry: August 11, 2021

Required documents for registration for EE

- 1. Application form
- 2. EE administration fee (80 EUR) statement from the Bank
- 3. Photocopy of Passport/ID Card
- 4. General Certificate of Secondary (High) school education Advanced level
- 5. Birth Certificate
- 6. Certificate about vaccination against hepatitis B
- 7.2 pictures
- 8. Validation of General Certificate of Secondary (High) school education Advanced level (Apostille)

Instructions – step by step

1. Application form

- application form has to be filled online in the electronic system AIS. Application form has to be download, printed, signed and the original has to be send to the study department till deadline.
- any changes after the deadlines are strictly forbidden (study program, dates of EE).

Electronic Application form - manual: https://zona.fmed.uniba.sk/fileadmin/lf/studium/SK/EN_pre_uchadzacov/ePrihlaska_EN_manual_novy_format-1.pdf

Electronic Application form - registration: https://e-prihlaska.uniba.sk/ais/eprihlas/#!/home#%2Fhome

2. EE administration fee

• for each study programme separately in the amount of EUR 80 paid to the bank account of the Faculty:

Name of Bank: State Treasury Name of the bank account: Lekarska fakulta UK v Bratislave IBAN: SK09 8180 0000 0070 0008 3004 Constant symbol: 0308 Variable symbol: 20204 SWIFT: SPSRSKBA

Please insert a message for recipient for identification of payment:"EE fee - name and surname of applicant"

• 70 EUR of EE administration fee is refundable in the case the applicant announces in written form his/her decision of application withdrawal till July 9, 2021.

In the case that applicant fails to take part in the EE, all fees associated with the admission procedure are considered non-refundable.

3. Photocopy of passport / ID Card

4. General Certificate of Secondary (High) school education Advanced level

- copy of the original document has to be certified by a Notary/Registrar, after that it has to be translated to Slovak language by sworn translator.
- we do recommend to have 2 translated documents, the second shall be used for the Validation procedure (see Validation).

5. Birth Certificate

• copy of the original document has to be certified by a Notary/Registrar, after that it has to be translated to Slovak language by sworn translator.

6. Certificate about vaccination against hepatitis B

• Under Article 38 (2). In accordance with Study rules of the Faculty of Medicine, Comenius University, Bratislava regarding health safety and health protection, student must undergo obligatory vaccination against B hepatitis.

7.2 pictures (3,5 x 4,5 photopaper)

• please put your surname on the back of photo

IMPORTANT:

- all required documents have to be send by post to Study department to the address:
 - Lekarska fakulta UK

ŠO-Referát pre zahraničných študentov

Špitálska 24

813 72 Bratislava, Slovakia

All required documents have to be submited till deadline, otherwise the applicant shall not be registrated for EE.

8. Validation of General Certificate of Secondary (High) school education Advanced level

• admitted applicant is obliged to begin with the Validation Procedure without any delay.

It is necesary to submit the Validation for the Enrolment day.

IMPORTANT: due to more complicated administrative procedure, applicants from third countries are obligated to submit the Validation till the date of EE (except of Japan and Israel).

Request necessary for District Office Bratislava

Validation of General Certificate of Secondary (High) school education Advanced level (Procedure of Validation step by step)

Web link: http://www.minv.sk/?info_OBUBA_skolstvo

Entrance examination test

EE test is in the on-line form in English language and contains 100 questions from Biology and 100 questions from Chemistry (randomly selected) and each question will offer 4 possible answers.

- Duration of the test is 2 hours.
- Applicant can acquire maximum of 800 points (minimum is -800 points).
- Correct answer: +1 point; incorrect answer: -1 point.
- The Entrance examination are carried out for each study programme separately; the scores from one Entrance examination test cannot be accepted in other study programme.
- Tests assessment is anonymous, based on individually assigned identification codes.
- Information about results of applicants will be available at the faculty web page <u>www.fmed.uniba.sk/en/</u> within one week after the day of the Entrance examination according to individually assigned identification codes and on the notice board of the Faculty of Medicine, Comenius University in Bratislava, Sasinkova 4.
- Admission requirements for study according to the number of obtained points from the Entrance examination test.

Booklets

The Biology Booklet contains 750 questions from biology. Each question offers 8 possible answers. Similarly, also the Chemistry Booklet contains 750 questions from chemistry. Each question also offers 8 possible answers. At the end of each booklet there are correct answers available. The test will contain ONLY questions presented in booklets in printed form/PDF format booklet published by the Faculty of Medicine Comenius University in Bratislava and sent to you from the

Study department of the FMCU in Bratislava.

The FMCU in Bratislava is not responsible for any other version of questions or tests that you will receive from unauthorized sources.

The price of booklets (biology + chemistry together):

Printed Form:

- personally in the Cash Desk at the Faculty of Medicine of Comenius University in Bratislava, Špitálska 24, 813 72 Bratislava (15 EUR)
- by post to your correspondence address after the payment will be on the statement of the FMCU:
 - to EU countries: 25 EUR (including the charge for shipping 10 EUR);
 - to other countries in the world: 32 EUR (including the charge for shipping 17 EUR).

PDF format:

• will be sent electronically by email (10 EUR)

Bank account: IBAN: SK09 8180 0000 0070 0008 3004

SWIFT: SPSRSKBA

Please insert a message for the recipient: "Booklet - name and surname of the applicant".

As soon as you pay for the booklets, send us please a confirmation on payment (scanned copy) and your correspondence address where to send them to an e-mail address:

jana.spolecnikova@fmed.uniba.sk

+4212 90119 862

We will send you the booklets immediately.

Accredited study programmes

Study programme	Study mode	Degree (MD)	Standard length of the study	Expected number of accepted students	Tuition fee per academic year
General Medicine	full-time	MUDr.	6 years	275	9.500 €
Dentistry	full-time	MDDr.	6 years	35	11.000€



Contact information - Study Department

Faculty of Medicine Study department Spitalska 24 813 72 Bratislava 1 Slovakia

Office No. 5 Phone +421 2 90 119 862 +421 2 90 119 462

Mgr. Katarína Mazancová e-mail: <u>katarina.mazancova@fmed.uniba.sk</u>

Jana Společníková

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Syllabus of entrance examinations

BIOLOGY

General Biology

- division and definition of biological sciences
- average ratio of most important elements, and small molecules in living organisms
- composition, synthesis, function and importance of basic macromolecules (nucleic acids, proteins, lipids and polysaccharides)
- basic properties of life in animals and plants (composition from cells, growth and development, response to stimuli, reproduction, adaptation)
- metabolism, anabolism and catabolism, photosynthesis
- reproduction of multicellular organisms (sexual and asexual-vegetative), exclusions (e.g. parthenogenesis and neoteny)
- individual development of an individual -basic phases (from origin of gametes to death)

The cell

- a cell as a basic structural, functional and reproductive unit of living organisms
- structure of a cell (plasma membrane, cytosol, cytoskeleton, organelle, nucleus)
- function of organelles, their function in metabolisms of plants and animals
- basic characteristics of metabolism in the cell, enzymes
- differences and common characteristics of prokaryotic and eukaryotic cells
- cell cycle and division of the cell (mitosis and its phases, interphase)
- meiosis and origin of gametes
- chromosomal pool of body cell and gamete
- basic tissues of animals and humans, structure and function

Microbiology and immunology

- viruses (structure, size and shape, types, reproduction in the cell, examples of diseases, AIDS)
- bacteria (structure, size and shape, types, reproduction in the cell, examples of diseases), disinfection and pasteurization
- parasites and parasitism (e.g. parasitic protozoa)
- defensive mechanisms of an organism (inborn and acquired immunity, active and passive immunity), phagocytosis, antigen and antibody

Animals

- overview of taxonomy, examples (e.g. Cestodes, Annelida, Arthropoda and Amphibia)
- convergence and diversity of traits
- bases of comparative physiology of animals and humans

Molecular biology

- composition and structure of DNA and RNA, complementarity of bases, genetic code
- basic kinds of genes, their function
- transcription and translation, synthesis of proteins
- organisation of nuclear and extranuclear DNA and RNA, complementarity of bases, genetic code
- basic kinds of genes, their function
- transcription and translation, synthesis of proteins
- organization of nuclear and extranuclear DNA, plasmides
- diseases caused by disorders in the structure of DNA -enzymopathies -examples and consequences

Genetics

- methods of genetic research -experimental breeding, genealogy (pedigrees) and gemellology (traits in twins)
- basic terms (gene-locus, allele, genotype, phenotype, homozygote, heterozygote, Mendelian laws, monohybridism (single-gene and dihybridism) inheritance of blood groups AB0 and Rh
- eukaryotic chromosomes, characteristics, number, chromosomal determination of sex (gonosomes, X-linked genes)
- set of chromosomes, haploid (n) and diploid (2n)
- X-linked recessive diseases (haemophilia A and color blindness -daltonism)
- gene mutations, chromosomes and genome
- aneuploidy and polyploidy

Humans

- blood and tissue fluid (composition and function)
- skeleton -main parts (bones of skull, trunk and extremities), connections
- heart and vessels (pulmonary circulation), structure, function and and action of the heart muscle
- respiratory system -composition, function, characteristics
- gastrointestinal system, composition, digestion and resorption of nutrients caused by lack of vitamins, control of vegetative functions
- endocrine glands, overview of hormones and their action and importance for metabolism and control of organism, signs and diseases caused by lack or surplus of certain hormones
- sense organs, structure and function
- brain and spinal cord, structure and function, importance of brain parts
- sexual glands, origin of gametes, fertilization, development of the embryo and fetus
- excretory system, structure and function of the kidney

CHEMISTRY

Basic chemical notions

· homogenous and heterogenous mixtures, solution, chemical individuum, matter, element, compound

Atom

• elementary particles, atomic and mass number, nuclides, isotope, atomic and molecular mass, quantum numbers (principal, azimuthal, magnetic and spin), orbitals, Pauli's principle, Hund's rule, building-up principle, electron configuration

Element classification

• periodicity in electronic configurations, characteristics of groups and periods, s-, p-, d-and f-elements, their basic properties and characteristics, octet rule, periodicity in chemical properties, periodical table, bonds between atoms in the molecules (ionic, covalent, coordinate covalent and hydro-gene bond), electronegativity, polarity of covalent bond

Solutions

• definition, concentration of solutions, osmosis, osmotic pressure, electrolytic dissociation, electrolytes

Structure of molecules

Chemical reactions

Protolytic reactions

- acids and bases, conjugated pairs, ampholytes, chemical equilibrium of acids and bases in solutions,
- acidity and basicity, PK value, salts, hydrolysis of salts, autoprotolysis of water, pH

Oxidation

• reduction reactions -theory of oxidation and reduction, oxidation numbers

Chemical kinetics and thermodynamics

• reaction rates, Guldberg -Waage law, the activated complex, catalysis, chemical equilibrium, equilibrium calculation, thermodynamics laws (1st and 2nd law), reaction energy (heat)

Organic chemistry

• structure of organic compounds, division of organic compounds, nomenclature, isomerism, functional groups

Hydrocarbons

• saturated, unsaturated, aromatic, their characteristics and typical reactions

Derivatives of hydrocarbons

- halogenderivatives
- hydroxyderivatives
- alcohols and phenols -basic characteristics and reactions
- · biologically important hydroxyderivatives
- quinines
- oxoderivatives -ethers, structure and chemical properties, aldehydes and ketones
- basic characteristics and chemical properties
- biologically important compounds
- amines -characteristics and reactions
- sulphur derivatives -thiols disulphides, sulphonic acids

Carboxylic acids

- basic characteristics, division, nomenclature, basic reactions, fatty acids
- iologically important acids
- vitamins, their importance for functions of the organism, diseases

Functional derivatives of carboxylic acids

• amides, esters, anhydrides -basic characteristics

Substitutional derivatives of carboxylic acids

• hydroxy, oxo, amino acids, Basic characteristics and reactions, basic compounds

Derivatives of carbonic acid

• structure of urea and its derivatives

Heterocyclic compounds

- division, basic characteristics. Five member heterocyclic compounds and their derivatives: aromatic nature, properties (furan, pyrole, thiophen, indol, porphin, tetrapyroles)
- six-member heterocyclic compounds and their derivatives: aromatic nature and properties (pyridine nicotinic acid, nicotin-amide, pyrimidine -uracil, thymine, cytosine, purine -adenine, guanine, quinoline, isoquinoline)

Natural compounds

Carbohydrates (saccharides)

- monosaccharides division, basic structure and properties. Isomerism of monosaccharides (cyclic forms)
- disaccharides structure and properties
- polysaccharides starch, glycogen, cellulose

Lipids

• structure of simple lipids, triacylglycerols, basic properties (hydrolysis - saponification)

Amino acids

• structure, chemical properties, isoelectric point

Proteins

• peptide bond, primary, secondary, tertiary and quartenary structure, denaturation of proteins

Heteroproteins

• division

Nucleic acids

• DNA, RNA, basic structural characteristics, biological importance, nucleosides, nucleotides

Enzymes

• general characteristics



Study Programme

Study branch: General Medicine

Form of study: 6-year doctoral full-time study

Characteristics of the Study branch

The undergraduate study branch General Medicine provides general natural science education that is based on human and ethical principles. The education includes theory of anatomical structure of the organism and its physiological functions. On this basis is set the further education of essential principles of aetiology and pathogenesis of pathological state and ways of treatment. The study is a complex of education focused on diagnostics, differential diagnostics, therapy and prevention of diseases. During undergraduate education, a student of the Faculty of Medicine, Comenius University acquires sound theoretical and practical knowledge, which enables him/her to think medically and to deepen his/her education in any specialization.

Profile of a Graduate

The main task of undergraduate programme at the Faculty of Medicine is to educate the students. Continuation of this undergraduate education is postgraduate education that prepares doctors for particular specialization. In the course of undergraduate education, students of the Faculty of Medicine are expected to acquire comprehensive theoretical knowledge, which enables them to think scientifically and to deepen their education in any specialized branch. They are expected to master:

- Basic principles, aims and organization of our health system.
- Morphology and function of particular organs of the human body so that he/she can comprehend physiological and pathological processes.
- Knowledge of the origin and cause of morphological and functional changes in the diseased organism to the extent necessary for rational treatment.
- Physical examination methods in particular medical branches and correct interpretation of the results of basic laboratory methods.
- Diagnostics and differential diagnostics of pathological units that could emerge in our population.
- Principles of treatment and practical performances of essential therapeutic procedures.
- Diagnostics of life-threatening conditions required for providing qualified help.
- Influence of social factors and the environment on the general health of the population, principles for prevention of infectious and non-infectious diseases and their practical application.
- Basic principles of assessing working ability of patients suffering from various diseases and injuries.
- Basic principles of legislatures regulating the demanding and responsible practice of medicine.
- Basic principles of methodology of research work. Principles of medical ethics that a doctor must observe in relation to patients during the course of his/her professional life.



Study branch: Dentistry

Form of study: 6-year doctoral full-time study

Characteristics of the Study branch

Dentistry is an independent medical branch, which includes diagnostics, prevention and treatment of the diseased states of oral cavity and teeth. It includes mainly the two most commonly occurred chronic infectious diseases of the population – dental caries and periodontal diseases and their complications, as well as other states that affect oral cavity and maxillo-facial part. The extent of general medical knowledge is in the content required for health prevention with special orientation for health and diseases of oral cavity in connection with the whole organism.

Profile of a Graduate

A graduate of the Dentistry study branch acquires sufficient theoretical and practical knowledge, required skills, so that he/she could after completion of the study independently carry out basic tasks in preventive and therapeutic dental care. In theory, he/she masters the required knowledge of theoretical and preclinical subjects and clinical branches of medicine and mainly dentistry in the context with integrity of the whole organism. In practice he/she learns the basic diagnostic, therapeutic and preventive methods, so that he/she will be able to carry out independently all common practical tasks and operations in oral cavity and he/she will apply this knowledge in his/her profession and practice. He/she has general medical view, multidisciplinary medical approach and follows the scientific basics of medicine. He/she knows the connections between the diseases of the whole organism and the diseases of oral cavity and face according to the study of general medical clinical subjects. He/she is able to make complex preventive treatment plan of patient care and realizes it on the basis of contemporary knowledge from the whole complex of dental medicine subjects and organization of a dentist's work. The required level of his ability and knowledge is in accordance with the Regulation of the Council of member states of EU No. 78/686/EEC accepted by ME SR.



Curriculum

The curriculum consists of compulsory subjects plus 53 electives, each with assigned number of credits. Students may design their own study programme, but they have to reach a score of minimum 60 credits per year. Both programmes – General Medicine and Dental Medicine – start in September each year. The first two years of instruction are entirely in English with additional Slovak language courses, because clinical courses require some knowledge of the Slovak language in order to allow the student to communicate with patients. Clinical courses start from 5th semester (beginning of 3rd year). Each student has to pass the final state examinations, write and defend the diploma thesis in the sixth year. After that, the degree and diploma of Doctor of General Medicine (MUDr.) or Doctor of Dental Medicine (MDDr.) is conferred upon a graduate. Diploma of Comenius University is accepted and recognized in most countries of the world. Comenius University doctors of medicine are also eligible for taking the E.C.F.M.G. examinations in the USA. For those who decided to pursue their carrier in Bratislava and to become a specialist in any given field of medicine and surgery, postgraduate studies are open (Residency Training Programmes and PhD studies).

General Medicine

1st year: pre-clinical studies in the first year cover subjects such as Anatomy, Medical Biology and Human Genetics, Histology and Embryology, Medical Chemistry, Medical Biophysics, Medical Ethics, Latin Medical Terminology, Nursing, First Aid, and Slovak Language.

2nd **year:** Anatomy, Histology and Embryology, Physiology, Medical Biochemistry, Medical Psychology and Communication with Patients, Microbiology, Introduction to Science, and Slovak Language.

3rd year: clinical studies start with introduction into Internal Medicine and Surgery, which continue through to the fifth year. Other subjects include Pathological Anatomy, Pathological Physiology, Pharmacology, and Immunology.

4th **year:** Internal Medicine, Surgery, Pharmacology, Paediatrics, Hygiene, Medical Ethics, Social Medicine, Neurology, Psychiatry, Sports Medicine, Dental Medicine, Radiology and Nuclear Medicine, Oncology, Anaesthesiology, and Diploma Work.

5th **year:** focused on Internal Medicine, Surgery and Paediatrics, with added topics – Epidemiology, Ophthalmology, Dermatovenerology, Forensic Medicine, Otorhinolaryngology, Psychiatry, Gynaecology and Obstetrics, Infectology, Family Medicine, Urgent Medicine, and Diploma Work.

6th year: is spent in one of University Hospitals, where clinical clerkship is realized at clinical in-patient departments, wards and out-patient departments in Internal Medicine, Surgery, Paediatrics, Gynaecology and Obstetrics, concluded by state examinations and Defence of the Diploma Work.



Dental Medicine

1st year: pre-clinical studies in the first year cover subjects such as Anatomy, Medical Biophysics, Medical Biology and Human Genetics, Dental Materials and Technologies, Physiology, Histology and Embryology, Medical Chemistry, Latin Medical Terminology, Preclinical Dentistry, First Aid, and Slovak Language.

2nd **year:** continuation of Dental Materials and Technologies, Preclinical Dentistry, Physiology, Histology and Embryology, Topographical Anatomy of the Head, Medical Biochemistry, Immunology, Pathological Anatomy, Pathological Physiology, Medical Microbiology, Medical Ethics, and Slovak Language.

3rd year: Dental Materials and Technologies, Pharmacology, Pathological Anatomy, Pathological Physiology, Internal Propedeutics, Surgical Propedeutics, Preventive Dentistry, Restorative Dentistry, Oral Surgery, Dental Prosthetics, General and Dental Radiology, Medical Psychology and Communication with Patients, Latin clinical Terminology, and Slovak Language.

4th **year:** Oral Surgery, Endodontics, Dental Prosthetics, Orthodontics, Neurology, Psychiatry, Internal Medicine, Surgery, Otorhinolaryngology and Ophthalmology, and Diploma Work.

5th year: focused on Maxillofacial Surgery, Dental Prosthetics, Restorative Dentistry, Periodontology, Orthodontics, Gerontostomatology, Gynaecology and Obstetrics, Paediatrics, Dermatovenerology, and Diploma Work. In the fifth year are included two state examinations, from Internal Medicine and Surgery.

6th year: Preventive Dentistry, Paediatric Dentistry, Periodontology, Orthodontics, Epidemiology, Hygiene, Social Medicine, Forensic Medicine, and three state examinations, from Oral and Maxillofacial Surgery, Orthopedic Dentistry and Therapeutic Dentistry, and Defence of the Diploma Work.



Science at the Faculty

Study of medicine is closely related to science. Students are familiarized with new discoveries in medicine during lectures, seminars and preparing of Diploma thesis.

Medical Sciences Student Conference

Medical Sciences Student Conference is organized by Student Scientific Council of the Faculty of Medicine, Comenius University in Bratislava in cooperation with Students' Science Club. On the conference students of medicine and dentistry are presenting their results obtained during experimental or clinical research.



Bratislava Medical Journal

Bratislava Medical Journal (Bratisl Med J) is an international journal of medicine and bio-medical sciences. It is published continuously since 1921. The journal is listed in the PubMed/Medline database since formation of this database. Bratislava Medical Journal is published simultaneously in both printed and electronic versions. Full texts of articles in PDF are available <u>on-line</u>.



History of the Faculty of Medicine of Comenius University in Bratislava



Faculty of Medicine of Comenius University founded in 1919 is one of the oldest and most prestigious faculties of the Comenius University. It was the first medical faculty in Slovakia and due to its tradition and high standard of study programs it has attracted the brightest students from all regions of Slovakia and worldwide. Academia Istropolitana (Universitas Histropolitana) in Bratislava, established according to the University of Bologna in the 15th century (1467), was the first university in the Kingdom of Hungary. In spite of its short duration, the University contributed to spreading the ideas about humanism. The first Faculty of Medicine was established in 1769 in the Slovak Republic at Trnava University. Even though its teaching and research activities lasted only seven years, it contributed to the development of education in the former Kingdom of Hungary.

The result of efforts to revitalize the University of Bratislava in the late 19th century was the establishment of the Royal Elizabethan University in Bratislava in 1912. Its Faculty of Medicine was founded in April 1918. Lectures for students in their third to fifth years started in the winter semester of the 1918/19 academic year in the Hungarian language, which was the official language at that time. The first auditorium was on the premises of the Provincial governmental hospital at Mickiewiczova 13 (nowadays – the University Hospital). The Dean's offices were situated in Aspremont's palace by Schiffbeck's Garden (now – the Medical Garden). In the newly created first Czechoslovak Republic (1918), the Elizabethan University was gradually based on government regulations. After relocating the Elizabethan University to Pätikostolia (Hungary), Slovak lecturers at Charles University in Prague and many Slovak politicians began to establish the Slovak University in Bratislava.

Members of the National Assembly of the Czechoslovak Republic adopted Act No. 375/1919 Coll. on July 27, 1919, which led to the establishment of the Czechoslovak State University in Bratislava. The languages of instruction were Slovak and Czech. In November 1919, the University was named Comenius University after the world-renowned educator Jan Amos Comenius.





The first staff of professors of the Faculty of Medicine Comenius University in Bratislava, who also represented the leadership of Comenius University, consisted of professors originally working at Charles University in Prague. The first President of Comenius University was a professor of Internal Medicine Kristian Hynek, MD. and the first dean of the Faculty of Medicine was a professor of Gynecology Gustav Müller, MD.

Since September 21, 1919, the Faculty of Medicine Comenius University was the first and only faculty of the new University of Bratislava. The Faculty consisted of seven departments: Department of Surgery (Head Prof. Stanislav Kostlivý, MD.), Department of Internal Medicine (Head Prof. Kristian Hynek, MD.), Department of Obstetrics and Diseases of Women (Head Prof. Gustav Müller, MD.), Department of Ophthalmology (Head Prof. Roman Kadlický, MD.), Department of Pediatrics (Head Prof. Jiří Brdlík, MD.), Department of Nervous and Mental Diseases (Head Prof. Zdeněk Mysliveček, MD.) and Department of Dentistry (Head Prof. Adolf Mach, MD.).

The first theoretical workplaces were the following institutes: Institute of Hygiene (Head Prof. Stanislav Ružička, MD.), Institute of Forensic Medicine (Head Prof. František Prokop, MD.), Institute of Pharmacology and Pharmacognosy (Head Prof. Bohuslav Polák, MD.), Institute of Pathology and Anatomy (Head Prof. Antonín Spilka, MD.), Institute of Social Medicine (since 1919 existed only de jure), Institute of General and Experimental Pathology (Head Prof. Miloš Netoušek, MD.). New clinics and departments were gradually added.

Theoretical institutes were established in the academic year 1922/23, which created conditions for teaching in all years of study at the Faculty of Medicine. Provisional and unsuitable spatial conditions and equipment were partly improved in 1927 when the first of the new buildings were put into operation at Sasinkova Street No. 2. Despite all efforts at that time, the second of the planned buildings was not built until the early sixties of the last century (Sasinkova Street No. 4).

Clinical training courses for 144 students started in December of the 1919/1920 academic year. The first graduation ceremony was held in February 1920 with its first graduate Pavol Halaša. In addition to undergraduate studies, the Faculty of Medicine became the base of postgraduate education in the form of in-service training for general practitioners. Not only were Slovak students interested in studying at the Faculty of Medicine in Bratislava, but students from abroad also showed their interest. At the beginning of the 1930s, students from abroad accounted for nearly half of all students.

The Faculty maintained professional contacts not only with colleagues from Prague and Brno since the first years of operation but also with many renowned international medical universities and scientific medical institutions in Paris, London, Berlin, Budapest, and Vienna, respectively.

In the late 1930s, mainly due to the political changes after the forced departure of the Czech professors, the educational process and the development of medical specialties involved members of the first generation of Slovak physicians – graduates from the Faculty of Medicine. Many of them successfully participated in the development of medical, biological and pedagogical sciences in Slovakia. The results of their research work met with favorable reception abroad. Among professors J. Ledényi-Ladziansky,

MD., of the Institute of Anatomy became a codifier of the Slovak anatomical terminology; A. J. Chura, MD., of the Department of Pediatrics, laid the foundation for Social Pediatrics in Slovakia; L'. Valach, MD., significantly contributed to the development of Radiotherapy; J. Fridrichovský, MD., became the first Slovak professor of Dentistry; E. Filo, MD., and L. Derer, MD., are the first Slovak professors of Internal Medicine.

Other prominent members of the Faculty of Medicine Comenius University, who contributed tothedevelopmentoftheFacultyandmedicalsciences,areaprofessorofPathology,F.Šubík,MD.;aprofessor of Urology, M. Jakšy, MD.; Head of the Department of Medical Chemistry, Prof. Dr. tech. F. Valentín; and a professor of Pharmacology, F. Švec, MD., and many others.

Professors of the Faculty of Medicine Comenius University significantly contributed to the establishment of the Association of Czech-Slovak Physicians in 1920, the Association of Czech-Slovak Medical Students in Bratislava and the first Slovak scientific journal – Bratislava Medical Journal (1921).

The events of World War II had a negative impact not only on the life of the Faculty, but mainly caused enormous material damage. The political system after 1948 influenced the Faculty's deviation from its original direction to European and world scientific-educational and social structures. The start of centralized managementofuniversitiessubjected to the Higher Education Act of 1950 meant cancellation of the institutes and new departments were not created.

From the academic year 1952/1953, the programs of Dentistry and Pediatrics were opened in addition to the program of General Medicine. Since 1991, the Faculty has been preparing future pediatricians within the field of general medicine.

Since 1957, scientific research at the Faculty concentrated on the issues of regeneration and transplantation of organs, cardiorespiratory dynamics, metabolism, and oncology. Since the late 1960s, research projects integrated into state and departmental research plans. The collection of scientific papers Folia Universitatis Facultatis Medicae Comenianae Bratislavensis (1963 – 992) of the Faculty played a particularly important role in publishing the results of research projects of the Faculty staff.

In the early 1980s, the research of the Faculty paid attention especially to the issues of degenerative processes and diseases of the musculoskeletal and vascular diseases of the CNS. In collaboration with the universities of the former socialist community, scientific research of diagnostic and therapeutic procedures in cardiovascular diseases and immune processes within the context of organ transplantation was developed.

After November 1989, the Faculty was one of the first universities in the framework of the former Czechoslovakia to form an academic board, later renamed as the Academic Senate of the Faculty



of Medicine, Comenius University (the first meeting of January 11, 1990). In 1990, the Faculty returned to its original organizational structure, which currently comprises 73 institutes and departments.

Primary goal of the Faculty is to provide first class education for future heath care professionals. Currently the school offers two main study programmes: General Medicine and Dentistry, both are 6 year day-time doctoral studies in Slovak or in English language. Traditionally the lectures were in Slovak, but since 1993 faculty offer both programmes in English focused primarily on the international students. Thanks to successful graduates Bratislava and its Faculty of Medicine has become known in many countries worldwide. The students graduate with the degree MUDr. (Medicinae Universae Doctor) and MDDr. (Medicinae Dentale Doctor) respectively. Faculty of Medicine also offers the possibility of advanced degrees in postgraduate PhD programmes and Residency Training Programmes. All programmes offered by Comenius University Faculty of Medicine are accredited by the Accreditation Committee of Ministry of Education of the Slovak Republic. Comenius University Faculty of Medicine ranks among the best national public institutions devoted to medical education and research. It is considered to be the opinion leader in preventive and treatment medical programmes that participate in many national and international research activities. Faculty of Medicine Theoretical Buildings and the Dean's offices are located in the historical city, next to the beautiful public "Medical garden". The Faculty Hospital serving as the clinical base for the students is situated in several separate buildings in the centre and also in the suburbs with convenient access to each other.

Faculty of Medicine is one of the thirteen faculties of Comenius University in Bratislava. The Rector is the statutory body acting on behalf of Comenius University, advised by the Vice Rectors with defined competencies. The faculty representative is the Dean elected for a 4-year period by the Academic Senate. The Dean's office is responsible for administrative and economic issues of the faculty. The Dean is advised by the Board of vice Deans, each Vice Dean is in charge of particular area (study, science, international relations, social care, etc.). The Academic senate is the highest autonomous academic faculty authority with coordinating and controlling responsibilities. The senate consists of two parts the Representatives of Employees and the Representatives of Students. The Scientific Board is the autonomous body of the faculty guaranteeing scientific and research standards of the faculty.



Comenius University



The history of higher education in Bratislava dates back to the 15th century. In 1467, King Matthias Corvinus following the order of his era and aiming to increase the splendor of his empire signed the founding chapter of the first University, baptized as Academia Istropolitana. For the following several centuries, Bratislava remained an important and flourishing multi-ethnic and multicultural administrative and financial centre of the entire Carpathian Valley. The development of the University was interrupted several times by history; nevertheless the idea of higher education has shown remarkable persistence having revived from time to time and now is striving for integration in its full structure. Today's University, which since 1919 carriesthenameofthefamouspedagogue and philosopher, Johann Amos Comenius (Komensky) "theteacher of nations", is rooted in this progressive spiritual heritage. During the last eight decades, thousands of physicians, lawyers and students of humanities graduated from the University. Besides professional knowledge, they received from alma mater moral support and love for their professions. At the same time, professors of the University, particularly of the Medical School became determinants of the intellectual life in the region by founding periodicals, associations they contributed to the spread of intellectual values.

Today, Comenius University in Bratislava represents modern European university with significant impact in the field of education and science. Comenius University in Bratislava has once again made it into the list of the top 500 universities in the world. The Round University Ranking (RUR) placed Comenius University in 433rd place, scored highest in the areas of education (220th place). Comenius University was the only Slovak university to be included in the ranking. It improved its ranking by 12 places, having been ranked 445th in 2016.

The ranking, which uses data going back to 2010, evaluates 20 indicators in four core areas: education (40%), research (40%), international diversity (10%), and financial sustainability (10%). The ranking assessed the world's top 930 universities, from 80 countries, and their performance over the last eight years. (A detailed breakdown of each indicator is available in the Methodology section on the RUR website: <u>http://roundranking.com/methodology.html</u>).

Comenius University Rector, Professor Karol Mičieta stated that "Rankings of the world's best universities are just one of the evaluation criteria we work with. Nonetheless, they are a popular indicator of scientometrics and they clearly show what sort of competitive international environment we are in and where we would like to see ourselves in the future. They are a form of motivation for us to do our job better and better."



Slovakia

General information

Established form: republic Type of government: parliamentary democracy Formation date: January 1, 1993 (after split of the Czech and Slovak Federative Republic) EU member since: May 1, 2004 Membership in other international organizations: UN, OECD, WTO, V4, NATO Area: 49,035 km² **Population:** 5,435,000 (2016) Population density: 111.1 inhabitants per sq km Official language: Slovak **Capital:** Bratislava (population: 452,288) Largest cities (by population): Bratislava: 425,923; Košice: 239,141; Prešov: 89,618; Žilina: 81,041; Banská Bystrica: 78,635; Nitra: 77,374 Nationalities: Slovak (80.7%), Hungarian (8.5%), Roma (2.0%), Czech (0.6%), Ruthenian (0.3%), Ukrainian (0.3%), German (0.1%), Polish (0.1%), other (0.2%) **Religion:** Roman Catholic (62.0%), Evangelic (5.9%), Greek Catholic (3.8%) Main agricultural crops: wheat, rye, corn, potatoes, sugar beets Breeding: cattle, pigs, poultry, sheep, goats Main fields of industry: automobile industry, chemical industry, iron ore processing, fertilizers, plastics, brown coal mining Natural resources: iron ore, mercury, copper, lead, zinc Electric current: 230 V/50 Hz, outlets with safety peg **Climate:** Slovakia has a continental climate with 4 seasons (spring, summer, autumn, winter). Summers are hot with temperatures often over 30°C and sometimes stormy. Winters are cold, cloudy and humid.

The average winter daily temperature is -2° C, but can plummet to -15° C.

The coldest month is January; the warmest are July and August. Data concerns Bratislava. Weather in northern and mountainous regions could be much colder.



Slovak Republic is a country located in Central Europe, surrounded by the Czech Republic, Poland, Ukraine, Hungary and Austria. Central and northern Slovakia is more mountainous. High Tatras, which Slovaks qualify as the "smallest of the highest mountains in the world" are located in the center of the country along the Polish border. The south and east of the country lie in the lowlands and is an important agricultural area in Slovakia. Most important river is the Danube, which connects the capital Bratislava with two European metropolises – Vienna and Budapest.

History

The first recorded tribes to settle on the territory of modern Slovakia were Celtic (from around 450 B.C.), whose culture represented the pinnacle of barbarian civilization. Tribes of Western Slavs arrived on this territory at the end of the 5th and beginning of the 6th centuries. After the break-up of Samo's Empire Slavonic tribes enjoyed no political unity. Duke Mojmir I. established a united state called Great Moravia (830 - 908). His successor, Rastislav, invited the missionaries Sts. Cyril and Methodius to Great Moravia. They established an independent church province, developed the first Slavic alphabet (Glagol) using Greek symbols, and used it to translate the bible into vernacular. The most important ruler of Great Moravia was Svätopluk who battled with the East Frankish Empire. Great Moravia disintegrated after its invasion by Magyar tribes and the successes of the East Frankish Empire. The Magyar tribes established a Hungarian Empire in the Danube area and the territory of present Slovakia was absorbed around 1000 A.D. The development of the Hungarian Empire was interrupted by the Tatar invasion (1240 – 1242). The period of humanism and renaissance on the Hungarian Empire is forever linked to the name of its ruler, Matthias Corvinus (1458 – 1490). The first university on the territory of present-day Slovakia, Academia Istropolitana (1465 - 1491), was established in Bratislava during his rule. An important historic moment for the development of the country was the defeat and the killing of King Loius II by the Turks at the battle near Mohacs in 1526. Habsburg dynasty assumed the Hungarian throne. The territory of Slovakia became the administrative and economic center of the Hungarian Empire and Bratislava was the coronation site of many Hungarian kings. In 1770, the enlightened, absolutists ruler, Maria Theresa, established the first school of mining in the world - the Mining Academy in Banská Stiavnica. In 1774, she also introduced compulsory school attendance.

The first written form of the Slovak language was codified in 1847, and the first political programme was proclaimed in 1848. In 1861, the Memorandum of the Slovak Nation was published and in 1863 Matica slovenská was established to promote the Slovak nation. The late 19th and early 20th centuries



were marked by the struggle against Hungarian nationalist tendencies, culminating in the creation of the Czechoslovak Republic. Czechoslovakia was established with the end of World War I and the dissolution of the Austro-Hungarian Monarchy in 1918. The period of prosperity of the newly established republic followed until the world's economic crisis and the later advent of the Nazism. In 1939, Slovakia was de iure proclaimed autonomous. On the end of World War II in 1945 the Czech and Slovakia states joined again. The 1950s in Czechoslovakia were a period of political oppression, characterized by the victimization of prominent political, cultural and religious individuals and even of ordinary people. The period of "normalization" lasted until the end of 70s. The normalization regime plunged Czechoslovakia into an economic, political and moral decline. It was succeeded by the democratic socialism in 1980s. Nevertheless, opposition towards the regime grew and during the late 80's it became more intense and organized. It led to the overthrow of the communist government in November 1989 referred to as the "Velvet Revolution". On January 1, 1993 the former Czech and Slovak Federal Republic was peacefully divided into two independent Slovak and Czech states and the Slovak Republic joined the United Nations as a fully-fledged member. In October 1993, the European Parliament ratified the association agreement between the Slovak Republic and the European Union. In spring 2004, the Slovak Republic joined NATO and on May 1, 2004 the Slovak Republic joined European Union as a full member.





Bratislava - The City

Bratislava (in German – Pressburg, in Hungarian – Pozsony) is situated in the geographic heart of Europe, just at the intersection of main European cultures from the West to the East and from the North to the South. It rests in the middle of Europe just 1 hour by train from Vienna, 2 hours from Budapest and 4 hours from Prague. It is on highway E-75, which begins in Ostende (Belgium) and continues to Istanbul via Vienna and Budapest. Bratislava is an exciting city with deep historical and cultural roots. Being situated on the Southwest of Slovakia, it lies on the left bank of the Danube River near the point where the borders of Slovakia, Austria, and Hungary meet. Bratislava is an exciting city with deep historical and cultural roots. Being situated on the Southwest of Slovakia, it lies on the left bank of the Danube River near the point where the borders of Slovakia, Austria, and Hungary meet. The area was settled as early as from the fifth millennium BC. More specific historical evidence, however, begins only in the fourth century BC, when a well-organized Celtic settlement with highly developed craft production arose here. The Roman conquest of the Danube Valley (Pannonia) by Druse and Tiberius signaled the end of Celtic culture and the beginning of Romanization. In the course of the 10th and 11th centuries, the area became part of the rising Hungarian Kingdom spreading over the Carpathian Valley. Available historical sources mentioned Bratislava for the first time in 907 on its old Latin name, Presalauspurch. Town privileges were received from King Andrew III. as early as in 1291, further privileges were granted in the 14th and 15th centuries, including the right to strike its own coins. The Academia Istropolitana, the first University in Slovakia and one of the first Universities in Central-Europe was founded here in 1456. After Louis II. of Hungary was defeated by the Ottomans in 1526, Bratislava was promoted to the second capital of the Habsburg empire, the capital of the Hungarian Kingdom, the coronation town of nineteen of its kings and queens and the site of its Parliament until the year 1848. In 1805, after the Battle of Austerlitz, the Peace of Pressburg between Austria and Napoleon's France was signed in the Bishop's Palace. From the 1830s and 1840s, Bratislava witnessed the unfolding of the Slovak national revival movement. In 1919, the city became one of the two main administrative and business centres of the newly formed Czechoslovakia. Since January 1, 1993 it has been the capital of the newly formed Slovak Republic and the seat of the country's central institutions.





Bratislava – Culture

Bratislava is an important industrial, cultural, educational and science centre in the region. Bratislava offers a harmonious blend of modern life within the charming background of old-world architecture reflecting its rich history. The most important landmarks include the former Royal Seat at the Bratislava Castle and the gothic St. Martin's Cathedral, the scene of 19 coronations including the crowning of Maria-Theresia, the Queen of Austria and Hungary. Many churches, narrow medieval lanes, Saint Michael's Gate with the rest of the remains of the medieval town fortifications, Old Town hall and series of architecturally attractive palaces, sites and town houses of various styles, form the characteristic taste of the city. The influences of numerous European cultures encountered in Bratislava are reflected in the cultural development of Slovakia and of neighboring Central-European countries. You might find out that there is not just something for everyone but also someone for everything. For those who enjoy arts and culture, the city offers outstanding museums, art galleries, theatres, concert rooms and excellent opera performances in the Slovak National Theatre. Those with a wilder streak will appreciate the numerous cinemas, nightclubs and bars. Bratislava is the town of young people, so there are many places, where you can spend evenings and enjoy yourself. You can taste our beers or wines in cosy taverns or spend your free time in many nightclubs or discos. There is also a bit of international flavor with many Greek, Italian, Chinese, and Japanese restaurants and spice shops. Overall, Bratislava is a metropolitan city of European importance, offering a student all the comforts of a modern city at an affordable price. More information you can find on www.visitbratislava.com. Bratislava's cultural pervasion is evident. Many of its significant citizens left for scientific or artistic careers to Vienna, Budapest or Prague (just to mention the outstanding scientist Matthias Bel, the famous composer Béla Bartók, the physicist Jan Andreas Segner, the inventor of the "Segner wheel", the constructor Wolf Kempelen, father of the theory on stress (Kempelen`s chess playing machine), Jan Selye and the Nobel-prize winner Filip Lenart), while numerous foreign teachers, scientists and artists were acting for some time in Bratislava. Their long and exceptional list includes the founder of the renowned Pressburger Yeshiva, rabbi Chatam Sofer (Moshe Schreiber), several outstanding composers, as Johann Amadeus Mozart, Joseph Haydn and FerencLiszt, a number of significant architects and sculptors as Georg Rafael Donner, Franz XaverMesserschmidt, Franz Anton Hillebrand or Ödön Lechner, whose works one can admire also in Budapest or in Vienna, and many others. The city has all the advantages of a medium sized multicultural town with long, colorful history and tolerant, cosmopolitan population. People in this city are very friendly; many of them speak English or German at some level and answer questions with politeness and courtesy.



Bratislava - Getting into

In case you do not find a direct flight to Bratislava Airport, the best way is to come to Vienna International Airport and from there to take a shuttle bus to Bratislava Central Bus Station. The airport shuttle service is efficient and frequent lines, which takes you to Bratislava in about 45 minutes (Vienna International Airport is only some 40 km from Bratislava city centre).



Orientation plan of the faculty area



Institute of Anatomy (1st floor) Institute of Medical Chemistry, Biochemistry and Clinical Biochemistry (2nd floor) Institute of Medical Physics, Biophysics, Informatics and Telemedicine (3rd floor) Institute of Social Medicine and Medical Ethics (3rd floor) 2 Institute of Anatomy (0 and 1st floor) Institute of Medical Chemistry, Biochemistry and Clinical Biochemistry (2nd floor) 3 Institute of Medical Biology, Genetics and Clinical Genetics (1st floor) Institute of Medical Chemistry, Biochemistry and Clinical Biochemistry (2nd floor) Institute of Microbiology (3rd floor) Institute of Pathological Physiology (4th floor) Institute of Molecular Biomedicine (5th floor) Institute of Pathological Anatomy (0 and 2nd floor) Institute of Forensic Medicine (1st floor) Institute of Histology and Embryology (3rd floor) Institute of Pharmacology and Clinical Pharmacology (4th floor) 5 Languages **6** Dentistry: - Preclinical Dentistry - Dental Materials and Techologies Nursing 8 First Aid 9 Physical Training 10 Study Department 11 Ladziansky Auditory 12 Large Auditory 13 Small Auditory 14 Department of Simulation and Virtual Medical Education

E Entrance

4

7

1 Institute of Physiology (0 and 1st floor)

