

ECTS COURSE CATALOG

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The Faculty of Health Sciences is located in Piešťany, a beautiful town in western Slovakia, famous for its spa. In this case, it is an ideal place to teach physical therapists. On the other hand, the National Institute of Rheumatology and a fully equipped hospital are located in Piešťany. This also provides opportunities for physiotherapists and radiology technology to receive a good education, which is a profession that is in great demand. The institute is located in the city center, in a picturesque building on Rázusová Street. For theory classes, it has large classrooms, small classrooms and well-equipped computer classrooms. Provide practical education in professional classrooms equipped with massage tables, numerous visual and rehabilitation aids and other professional equipment. All classrooms are equipped with audio-visual equipment, and teachers have their own fitness room.

STUDY PROGRAMMES

PHYSIOTHERAPY

The graduates of physical therapy master basic checkup processes and ways in therapy, balneology and medical rehabilitation. They will so perform extremely skilled activities at intervals the frame of preventive, diagnostic, medical, rehabilitation and therapy care in rehabilitation establishments, sanatoriums, in-home medical care agencies, establishments of medical education and therapy further as in well-being or fitness centres. The graduates area unit competent to figure in alternative specialised positions in establishments like health or business insurance corporations and employment offices. Additionally, they will realize employment in academic facilities for disabled kids and youth, requalification facilities for disabled voters, protected workshops and ergotherapy facilities. They are helpful for social organizations targeted on resocialization of voters with disabilities. An alternative choice for employment is corporations that manufacture and distribute therapy aids. Another career possibility for the graduates is that the third sector's civic associations and foundations. The Faculty closely cooperates with medical facilities in Piešťany like Slovak Health Spas, the National Institute of Rheumatic Diseases, Horezza Spa Institute, Alexander Winter Hospital and diverse non-public rehabilitation facilities.

RADIOLOGICAL TECHNIQUE

The graduates of this study programme will notice employment among the frame of diagnostic and medical aid in clinics and hospitals, in analysis institutes, in each state and personal facilities, as well as facilities providing veterinary care. They are going to notice employment in undregarduate and postgraduate instructional establishments and facilities, in corporations providing production, service and distribution of radiodiagnostic and therapeutic devices since they are ready to perform basic assurance services on imaging devices. They will be used in international organizations and organizations of the EU. However, the graduates' primary career choice ought to be employment in an exceedingly medical facility. The scholars of imaging techniques square measure ready to work with fashionable diagnostic and therapeutic technologies and their skills is utilized in each human and veterinary observe. Practical education takes place at the country's foremost medical establishments – University Hospital Bratislava, University Hospital Trnava, Alexander Winter Hospital in Piešťany or St. Elizabeth's Oncological Institute in Bratislava.

Study programme: Physiotherapy

Bachelor's degree

Course name: Anatomy and physiology

Number of credits: 6

Course objective: After completing the course, students will learn anatomical nomenclature. They will be able to demonstrate the individual systems and organs of the human body in terms of their structure, location and topography in the human body.

Teacher: prof. doc. MUDr. Richard Imrich, DrSc.

Course name: Balneotherapy, climatotherapy, hydrotherapy and thermotherapy

Number of credits: 3

Course objective: Students will acquire comprehensive theoretical and practical information about natural healing resources, their physicochemical properties and their biological effects. They will learn to prevent the use of physical resources in treatment and rehabilitation. Students will be able to use the knowledge in the application in practice after the level of management of the department of physical therapy and balneotherapy.

Teacher: doc. MUDr. Ján Mašán, PhD.

Course name: Physiotherapy in paediatrics

Number of credits: 3

Course objective: After completing the course, students will gain basic information about the physiological peculiarities of maturation of individual systems in childhood.

Teacher: MUDr. Oľga Boldišová

Course name: Physiotherapy in surgery and traumatology

Number of credits: 3

Course objective: After completing the course, students will gain comprehensive information about the basics of general and special surgery. They will learn the importance of rehabilitation as an important part of postoperative care, which is focused on the rapid return of physiological functions and prevention of postoperative complications, especially thromboembolic disease. After completing the course, students will have acquired comprehensive information about the basics of trauma surgery. They will be able to emphasize the importance of treatment and subsequent rehabilitation for various types of musculoskeletal injuries.

Teachers: doc. MUDr. Štefan Durdík, PhD., MUDr. Ľudovít Šalgovič, CSc.

Course name: Physiotherapy in neurology

Number of credits: 3

Course objective: After completing the course, students will gain comprehensive information about the functional anatomy of the nervous system, the basics of clinical neurophysiology, the basics of examination of the nervous system, evaluation of basic disorders of the nervous system, the effects of external and internal stimuli on the nervous system. They will learn the basic therapeutic procedures used in diseases of the nervous system, the basics of neurological propaedeutic and syndromology.

Teacher: MUDr. Oľga Boldišová

Course name: Physiotherapy in internal medicine

Number of credits: 3

Course objective: After completing the course, students will be acquainted with the examination methods, the most common diseases, symptoms and differential diagnosis in internal medicine, so that they are able to apply the acquired theoretical knowledge in physiotherapeutic practice.

Teacher: prof. MUDr. Ľudovít Gašpar, CSc.

Course name: ~~Medical rehabilitation~~ už nie je v zozname predmetov

Number of credits: 5

Course objective: After completing the course, students will know the basic systematic and functional diagnostics of the musculoskeletal system. They will get acquainted with the basic auxiliary examination procedures, basic examination procedures in the field of medical rehabilitation and physiotherapy, anamnesis, objective examination, individual syndromes and the use of individual tests in these syndromes and nosologically units.

Teacher: doc. MUDr. Zuzana Popracová, CSc.

Course name: Pathological anatomy

Number of credits: 3

Course objective: After completing the course, students will acquire basic knowledge of general and special pathology to the extent necessary for balneology and physiatry.

Teacher: prof. MUDr. Štefan Galbavý, PhD.

Course name: Practical training (in the Hospital, individual plan)

Number of credits: 6

Course objective: Students will gain comprehensive information about physiotherapeutic techniques and physical procedures through practical implementation in contract facilities. They apply their knowledge in the preventive diagnostic and therapeutic process in specialized rehabilitation facilities and institutes under professional supervision.

Teacher: PhDr. Mgr. Marián Mihálik

Study programme: Physiotherapy

Master's degree

~~Course name: Balneotherapy, climatotherapy, hydrotherapy and thermotherapy~~ už nie je v zozname Mgr predmetov

Number of credits: 5

Course objective: The student knows the basic concepts clarifying the nature and specificity of individual therapies, he knows demonstrate a thorough knowledge of the mechanism of action of physiological and pathophysiological effects in individual therapies on the body, can define indications and contraindications in individual therapies and specific procedures, can demonstrate a thorough knowledge of the principles of safety and hygiene in individual therapies and can demonstrate these principles.

Teachers: doc. MUDr. Zuzana Popracová, CSc., MUDr. Ján Mašán, PhD.

Course name: Information Technology / e-Health

Number of credits: 2

Course objective: The student will learn to master various concepts, procedures and means of information and communication technologies used in the e-health system. Achieve computer literacy in students at a level that will allow the effective use of elements of informatics in the processing of various assignments, tasks, student professional activities as well as scientific works.

Teacher: Dr. h. c. MUDr., Juraj Štofko PhD., MBA, MPH, univ. doc.; Mgr. Ondrej Machovič,

Course name: Management and ethics in physiotherapy

Number of credits: 2

Course objective: A graduate is able to interpret basic theories of management, define basic terminology related to management, define the role of a manager in healthcare, explain the basics of organizational structure, clarify organizational culture and ways of building it up, propose solutions to resolve conflicts within managerial practice, plan introduction of changes in organization of healthcare, apply marketing principles in organisation of healthcare, interpret basic organizational strategies to achieve a market advantage, demonstrate basic knowledge of quality system building in health care. A graduate can also use basic principles of managerial ethics, is capable of using basic marketing principles in conditions of healthcare. Graduates are familiar with the current legislation in the field as well as with principles of team management.

Teacher: Mgr. Jana Koišová, PhD.

Course name: Biomedical statistics and research in physiotherapy

Number of credits: 2

Course objective: A graduate of the course is able to demonstrate the basic principles and possibilities of statistical analysis of biomedical data. They are capable of using statistical analysis in scientific and research publications in the fields of biological and medical sciences. They can also process the obtained data, perform a correct selection of normality tests, tests for parameters of normal distribution, etc. A graduate uses simple correlation and regression analysis.

Teacher : Dr. h. c. MUDr., Juraj Štofko PhD., MBA, MPH, univ. doc.; PhDr. Jana Stanová, PhD.

Course name: Organization in public health care

Number of credits: 2

Course objective: A student acknowledges the organizational system providing public healthcare, assesses its quality and relevant interventions. The course includes comparison of health systems in Europe and around the world.

Teacher: Dr. h. c. MUDr., Juraj Štofko PhD., MBA, MPH, univ. doc.; doc. PhDr. Oľga Bočáková, PhD.

Course name: Practical training (in the Hospital, individual plan)

Number of credits: 6

Course objective: The student applies physiotherapeutic care, medical rehabilitation procedures and kinesiotherapy in the natural conditions of individual clinical workplaces.

Teacher: PhDr. Mgr. Marián Mihálik

Study programme: Radiological technique

Bachelor's degree

Course name: Anatomy and physiology

Number of credits: 4

Course objective: After completing the course, students will master the anatomical nomenclature, demonstrate the individual systems and organs of the human body in terms of their structure, position and function in the human body.

Teacher: prof. doc. MUDr. Richard Imrich, DrSc.

Course name: Physiology and pathological physiology

Number of credits: 2

Course objective: Students will be provided with comprehensive information on the physiology of cells and tissues of body systems, especially the central and peripheral nervous system and skeletal muscle. After completing the course, students will know the principles of functional disorders, molecular, cellular and systemic mechanisms. They will master the origin and development of pathological processes in a diseased organism.

Teacher: prof. MUDr. Štefan Galbavý, DrSc.

Course name: Surgery and traumatology

Number of credits: 2

Course objective: Students will know basic information about general and special surgery after completing the course. They will learn the importance and possibilities of modern radiological diagnostics and treatment of individual surgical diseases. Students will be introduced to the basics of trauma surgery. After completing the course, students will know the importance of radiodiagnostics for individual injuries of the musculoskeletal system.

Teachers: prof. MUDr. Štefan Durdík, PhD., MUDr. Ľudovít Šalgovič, CSc.

Course name: Computer tomography

Number of credits: 3

Course objective: Students will master the principles of imaging using computed tomography. After completing the course, they will know in detail the different types of CT devices, their historical development and the development of individual major components. They will learn the individual components, functions, development and impact on the quality and method of examination. Students will master individual modifications of imaging using computed tomography, preparation of the patient for CT examination and contraindications for CT examination. They will learn different types of injectors for CT devices, types of contrast agents and their administration and an overview of CT interventions.

Teachers: prof. MUDr. Jiří Neuwirth, CSc. MBA, doc. MUDr. Jana Slobodníková, PhD.

Course name: Conventional radiology

Number of credits: 4

Course objective: Students will master the basic knowledge of individual projections of the skeleton, head, limbs and organ projections. They will get acquainted with the preparation of patients for examinations, with the course of basic and special conventional examinations in radiology. They will master the issue of indications for making X-rays and projections.

Teachers: prof. MUDr. Jiří Neuwirth, CSc. MBA, doc. MUDr. Jana Slobodníková, PhD.

Course name: Magnetic resonance

Number of credits: 4

Course objective: The student will master the basic knowledge of the principles of magnetic resonance and contrast agents used in magnetic resonance. The student will master the various types of radio frequency pulse sequences, their advantages and disadvantages. He is able to

summarize the principles of magnetic resonance spectroscopy and functional magnetic resonance. The student masters the main indications and contraindications for examination, procedures and techniques in magnetic resonance imaging in individual anatomical areas and is able to describe the tasks of a radiological assistant in magnetic resonance examination.

Teachers: prof. MUDr. Jiří Neuwirth, CSc. MBA, MUDr. Andrej Klepanec, PhD.

Course name: Nuclear medicine

Number of credits: 4

Course objective: The student will master:

- basic physical principles of nuclear medicine with diagnostic and therapeutic focus
- properties and tasks of the radiopharmaceutical and functions of individual elements of the functional imaging system
- principles of radiation protection of the patient, accompanying persons and staff in the workplace of nuclear medicine.

The student will master the principles of indication and implementation of individual diagnostic methods of nuclear medicine in these areas. They will know the possible risks of the implementation of diagnostic methods of nuclear medicine and will know the specifics of the implementation of these methods in individual age categories.

Teachers: prof. MUDr. Jiří Neuwirth, CSc. MBA, doc. MUDr. Soňa Balogová, PhD.

Course name: Interventional radiology

Number of credits: 4

Course objective: The student will master the basic knowledge of vascular and nonvascular interventional radiology.

Teacher: MUDr. Andrej Klepanec, PhD., MPH, EBIR

Course name: Radiation protection

Number of credits: 2

Course objective: Students will master the basic principles of radiation protection, control and measurement of irradiated workers, patients and residents. They know the necessary legislation, dose limits and their interpretation.

Teacher: MUDr. Drahomíra Mičová, MPH

Course name: Radiation oncology

Number of credits: 1

Course objective: The student will master a comprehensive overview of the issue of oncological diseases, with emphasis on complex diagnostics (and the place of imaging methods in it) as well as complex treatment (and the place of radiotherapy and radionuclide treatment methods in the process of oncological treatment).

Teachers: prof. MUDr. Štefan Durdík, PhD., doc. MUDr. Jana Slobodníková, PhD.

Course name: Radiodiagnostics

Number of credits: 2

Course objective: The student will be acquainted with the history of the field, understanding the principle and function of individual elements of the radiodiagnostic system (X-ray machine, generator, film, image intensifier, processing and evaluation of image information). He will master the basic principles and indications of sciascopy, skiagraphy, including mammography and dental diagnostics, as well as the differences in imaging techniques.

Teachers: prof. MUDr. Jiří Neuwirth, CSc. MBA, doc. MUDr. Jana Slobodníková, PhD., MUDr. Andrej Klepanec, PhD.

Course name: Radiotherapy

Number of credits: 3

Course objective: The student will master the use of ionizing radiation in the treatment of malignant tumors. He will have an overview of radiotherapeutic methods and will deal with the application of external beams of gamma radiation and electrons, as well as the use of radioactive emitters in brachytherapy. The student will master the position of radiotherapy in the context of comprehensive cancer treatment, types and principles, functions of irradiation technology, the technical side of its operation, as well as the planning and dosing of treatment.

Teachers: prof. MUDr. Štefan Durdík, PhD, prof. MUDr. Jiří Neuwirth, CSc., MBA, doc. MUDr. Jana Slobodníková, PhD.

Course name: Topographic anatomy

Number of credits: 3

Course objective: Students will master the information about the imaging of organs and individual parts of the body and their mutual topographic connection, using classical X-rays, as well as using CT imaging in 3D reconstruction.

Teacher: doc. MUDr. Jana Slobodníková, CSc.

Course name: Ultrasound diagnostics

Number of credits: 2

Course objective: The student will master basic information about the principles of ultrasound imaging in grayscale, its use in the diagnosis of changes in various organs and structures, will be able to give an overview of indications in various medical disciplines, describe limitations, artifacts, as well as news and trends for the future.

Teachers: MUDr. Jana Sedláková, PhD., MUDr. Matej Rusina

Course name: Practical training (in the Hospital, individual plan)

Number of credits: 12

Course objective: After completing the practical training, the student will master the basic radiological techniques through their practical implementation at contracted workplaces. At the same time, he has mastered the principles of communication and cooperation with patients in practice.

Teacher: Bc. Soňa Liptáková