Study plan

Name of study plan: Physiotherapy - full-time

Faculty/Institute/Others:
Department:
Branch of study guaranteed by the department: Welcome page
Garantor of the study branch:
Program of study: Specializations in Health Service
Type of study: Bachelor full-time
Required credits: 180
Elective courses credits: 0
Sum of credits in the plan: 180
Note on the plan:

Name of the block: Compulsory courses
Minimal number of credits of the block: 180
The role of the block: Z

Code of the group: 17PBF POV 16
Name of the group: Physiotherapy compulsory course 16
Requirement credits in the group: In this group you have to gain 180 credits
Requirement courses in the group: In this group you have to complete 59 courses
Credits in the group: 180
Note on the group:

Code	Name of the course / Name of the group of courses *(in case of groups of courses the list of codes of their members)* *Tutors,* ***authors*** *and guarantors (gar.)*	Completion	Credits	Scope	Semester	Role
17PBFAOK	**Anatomy and General Kinesiology** ***Ivan Dylevský***	Z,ZK	5	2P+2C	Z	z
17PBFAOKS	**Anatomy and Special Kinesiology** ***Ivan Dylevský***	Z,ZK	4	2P+2C	L	z
17PBFBLT	**Balneotherapy**	Z,ZK	2	2P	L	z
17BOZP	**Occupational Safety and Health, Fire Protection and First Aid** *Petr Kudrna* ***Petr Kudrna*** *Petr Kudrna (Gar.)*	Z	0	1P	Z	z
17PBFBLG	**Biology**	Z,ZK	4	1P	Z	z
17PBFBB	**Biomechanics and Biomaterials**	Z,ZK	4	2P+2C	Z	z
17PBFEGT	**Ergotherapy and Ergonomy**	KZ	2	1P+1C	L	z
17PBFEVF	**Ethics in Physiotherapy**	KZ	2	2P	Z	z
17PBFFLM	**Physical Therapeutic Methods**	Z,ZK	2	1P+2C	L	z
17PBFFZN	**Physiology and Basic Neuroscience** ***Ivan Dylevský***	Z,ZK	3	2P+2C	L	z
17PBFF1VP	**Physiothrapy I. - Examination Procedures** ***Tomáš Nedělka***	Z	2	1P+4C	L	z
17PBFF2TP	**Physiotherapy II - Therapeutic Procedures, Methods and Concepts** ***Tomáš Nedělka***	Z,ZK	3	2P+4C	Z	z
17PBFFPE	**Physiotherapy in Paediatrics** ***Andrea Hašková***	Z,ZK	4	2P+2C	Z	z
17PBFGYP	**Gyneacology and Obstetrics**	KZ	2	1P	Z	z
17PBFHAE	**Hygiene and Epidemiology**	KZ	2	1P	Z	z
17PBFISZ	**Information Systems in Health Services**	Z,ZK	3	2P+2C	Z	z
17PBFLTV	**Therapeutic Physical Training**	KZ	1	2C	L	z
17PBFMAZ	**Management and Administration in Healthcare**	KZ	1	1P	L	z
17PBFMMT	**Massage and Soft Tissues Techniques**	KZ	2	3C	Z	z
17PBFMVP	**Methodology of Scientific Research**	Z	2	1P+1C	Z	z
17PBFNRFA	**Neurophysiology** ***Petra Fialová***	Z,ZK	3	1P+1C	Z	z

17PBFNEUA	**Neurology** *Tomáš Nedělka* ***Tomáš Nedělka*** *Tomáš Nedělka (Gar.)*	Z,ZK	2	2P+1C	L	z
17PBFOAR2	**Practical Training at Ambulatory Rehabilitation Center II** *Petra Fialová* ***Petra Fialová*** *Petra Fialová (Gar.)*	KZ	5	200XH	L	z
17PBFOAR3	**Practical Training at Ambulatory Rehabilitation Center III** *Monika Donevová* ***Monika Donevová*** *Monika Donevová (Gar.)*	KZ	12	240XH	L	z
17PBFOAR1	**Practical Training at Ambulatory Rehabilitation Hospital Department I** ***Petra Fialová***	KZ	4	120XH	L	z
17PBFOPR1	**Practical Training at Rehabilitation Inpatient Department I.** ***Petra Fialová***	KZ	4	120XH	L	z
17PBFOPR2	**Practical Training at Rehabilitation Inpatient Department II.** *Petra Fialová* ***Petra Fialová*** *Petra Fialová (Gar.)*	KZ	3	120XH	L	z
17PBFOPR3	**Practical Training at Rehabilitation Inpatient Department III** *Monika Donevová* ***Monika Donevová*** *Monika Donevová (Gar.)*	KZ	10	240XH	Z	z
17PBFORU1	**Practical Training in Rehabilitation Institute I** ***Petra Fialová***	KZ	4	120XH	L	z
17PBFORU2	**Practical Training in Rehabilitation Institute II** *Petra Fialová* ***Petra Fialová*** *Petra Fialová (Gar.)*	KZ	4	160XH	L	z
17PBFORU3	**Practical Training in Rehabilitation Institute III** *Monika Donevová* ***Monika Donevová*** *Monika Donevová (Gar.)*	KZ	10	160XH	L	z
17PBFOTP	**Orthopedics and Traumatology of the Locomotor Apparatus**	Z,ZK	3	2P+1C	Z	z
17PBFPAS	**Handicapped Movement Activities and Sports**	Z	3	1P	Z	z
17PBFPAO	**Prothetics and Orthotics**	Z,ZK	3	1P+1C	L	z
17PBFPPO	**First Aid**	KZ	2	1P+1C	L	z
17PBFRPP	**Rehabilitation Propaedeutic**	KZ	5	1P+1C	Z	z
17PBFSBP	**Bachelor Thesis Seminar** ***Monika Donevová***	Z	1	0.5C	L	z
17PBFSPR	**Social and Occupational Rehabilitation**	Z,ZK	3	1P+2C	Z	z
17PBFSPA1	**Sports Activity I.**	Z	1	2C	L	z
17PBFSPA2	**Sports Activity II.**	Z	1	2C	L	z
17PBFSPA3	**Sports Activity III.**	Z	1	2C	Z	z
17PBFVLG1	**Internal Medicine and Geriatry I**	Z	3	2P+2C	Z	z
17PBFVLG2	**Internal Medicine and Geriatry II**	Z,ZK	3	2P+1C	L	z
17PBFVVK	**Evolutionary Kinesiology**	Z,ZK	2	2P	L	z
17PBFZFA	**Fundamentals of Pharmacology**	KZ	2	1P	Z	z
17PBFZLCH	**Fundamentals of Medical Chemistry and Biochemistry**	Z,ZK	4	1P+1C	Z	z
17PBFZOT	**Fundamental Professional Terminology**	KZ	1	2P	Z	z
17PBFZPF	**Fundamental Pathophysiology**	Z,ZK	3	1P+1C	Z	z
17PBFZPA	**Fundamentals of Pathology** ***Ivan Dylevský***	Z,ZK	3	2P	Z	z
17PBFZPS	**Fundamentals of Pedagogy and Special Pedagogy** ***Monika Donevová***	Z,ZK	1	1P+1C	L	z
17PBFZPP	**Fundamental Psychiatry and Psychotherapy**	Z,ZK	2	2P+1C	L	z
17PBFZRM1	**Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method I** ***Dita Hamouzová***	Z	3	40XH	Z	z
17PBFZRM2	**Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method II** *Dita Hamouzová* ***Dita Hamouzová*** *Dita Hamouzová (Gar.)*	ZK	4	25XH	L	z
17PBFZSI	**Fundamentals of Statistics and Informatics**	Z,ZK	3	1P+2C	Z	z
17PBFZTV1	**Medical Physical Education I.**	Z	1	2C	Z	z
17PBFZTV2	**Medical Physical Education II.**	Z	1	2C	L	z
17PBFZB	**Medical Biophysics**	Z,ZK	4	1P+1C	Z	z
17PBFZLN	**Legislation in Health Care**	Z,ZK	2	2P	Z	z
17PBFZBP	**Bachelor Thesis** ***Ivan Dylevský*** *Ivan Dylevský (Gar.)*	Z	4	2XT	L	z

Characteristics of the courses of this group of Study Plan: Code=17PBF POV 16 Name=Physiotherapy compulsory course 16

17PBFAOK	Anatomy and General Kinesiology	Z,ZK	5

General anatomy comprises the general nomenclature, directions and areas within the human body and brief outline of the general structure of particular tissues originating from individual germ layers (embryonal endoblast, mesoblast and ectoblast). Special anatomy deals with the structure and names of parts of individual organ systems. The individual systems are as follows: bones (osteology), joints (arthrology), parts of the locomotor apparatus (proximal and distal limbs, girdles, spine and skull), muscles (myology), endocrine glands, sexual glands, heart and circulation system (arteries, veins and lymph system), peripheral and central nervous system, sensory apparatus, skin and mammary gland. The delimitation of the term kinesiology is presented as a science dealing with the body movements. Biomechanical characteristics of tissues forming the locomotor apparatus. Visceral organs, blood streaming. Biomechanics of breathing and function of skeletal muscles beyond the locomotor apparatus. Kinesiology of standing, walking, individual body parts.

17PBFAOKS	Anatomy and Special Kinesiology	Z,ZK	4

17PBFBLT	Balneotherapy	Z,ZK	2
Fundamentals of balneology, natural medicinal resources, and Balneotechnology balneohygieny, classical balneology procedures and their effects on the body, application of rehabilitation and physical therapy in various hydrotherapy procedures, mechanisms of action. Suitability of spa treatments for individual diseases and specific balneace. Importance of spas in the CR and its specifics in the world.			
17BOZP	Occupational Safety and Health, Fire Protection and First Aid	Z	0
17PBFBLG	Biology	Z,ZK	4
Principles of cellular and developmental biology, genetics and possible genetic interactions.			
17PBFBB	Biomechanics and Biomaterials	Z,ZK	4
17PBFEGT	Ergotherapy and Ergonomy	KZ	2
17PBFEVF	Ethics in Physiotherapy	KZ	2
Subject introduces students to fundamental ethical issues in medical ethics due to future professional orientation. It develops students' ability to think in ethical contexts, discuss, argue and defend their views in ethical dilemma situations, which brings medical environment.			
17PBFFLM	Physical Therapeutic Methods	Z,ZK	2
The student is acquainted with the nature of physical processes that are used in the instrument in medical rehabilitation therapies and their effects on physiological and pathophysiological happening in the body and thus their possible use in the treatment of various pathological conditions. Are analyzed in detail the various indications and contraindications, appropriate physical parameters, possible interactions with other treatments, including pharmacotherapy. Attention is focused on the safety device used by physiotherapy, legal issues and the manner of application procedures.			
17PBFFZN	Physiology and Basic Neuroscience	Z,ZK	3
17PBFF1VP	Physiothrapy I. - Examination Procedures	Z	2
17PBFF2TP	Physiotherapy II - Therapeutic Procedures, Methods and Concepts	Z,ZK	3
17PBFFPE	Physiotherapy in Paediatrics	Z,ZK	4
Basic paediatrics, characteristics of diseases specific for children. Familiarization with basic examination and therapeutic approaches in paediatric therapeutic rehabilitation. Familiarization with rehabilitation procedures in selected paediatric diagnoses. Familiarization with psychomotor development in children. The rehabilitation of children can be divided into transient rehabilitation (subsequent care performed immediately next to the treatment) and permanent rehabilitation which concerns children with long-term or permanent health handicaps. Ergotherapy in children as a component of therapeutic rehabilitation.			
17PBFGYP	Gyneacology and Obstetrics	KZ	2
17PBFHAE	Hygiene and Epidemiology	KZ	2
Hygiene: The subject provides an outline in the field of general and municipal hygiene. It is particularly aimed at hygienic requirements of the occupational environment for selected physical and chemical components. The general and municipal hygiene: Development of the hygiene basic provisions concerning hygienic components and their organization. Hygiene of the atmosphere, soil, water and hygiene of settlements. Hygienic requirements for the occupational environment: Occupational hygiene. Physical factors in the occupational environment, temperature and moisture. Conditions of working sites (ventilation and air conditioning, air exchange, heating). Illumination. Visual comfort. Heat. Thermal comfort. Provisions against the noise. Provisions against vibrations. Effects of the noise on the human organism. Harmful chemical compounds and aerosols in the occupational environment. Safety of the occupational environment. Hygiene of waste materials and their removal. Waste waters, solid waste materials, hygiene of water. Protection of the public health and safety and human health protection at work. Risk working sites. Handling with hazardous substances and chemical products. Authorities of the public health protection, state health surveillance. Legislation, roles of the state administration, sanctions, administrative procedures and provisions in extraordinary events. Epidemiology: Origination and propagation of infectious diseases, i.e. bacterial, viral and parasitic infections. Pathogenesis of the diseases induced, outline of infectious agents. Outline of causes of the origination and propagation of non-infectious diseases, particularly of civilization diseases. Collective immunity, susceptibility and resistance. Active immunization (principle, current use in practice). Passive immunization, vaccines. Safety of vaccines, post-vaccination reactions, vaccination contraindications. Strategy of vaccination programmes. Epidemiological measures focused on the source elimination. Epidemiological precautions aimed at the transmission discontinuation. Basic evaluation of health risks. Methods and procedures of epidemiological monitoring.			
17PBFISZ	Information Systems in Health Services	Z,ZK	3
The scope of the subject is acquainting the student with methods of planning and implementation of applications of information technologies to healthcare services. In the introduction to the subject, the students will be familiarized with problems of database systems in general. These are particularly hospital information systems, manager information systems, integration of healthcare information systems, implementation of the system for connection to the electronic healthcare book, i.e. implementation of the interface between the hospital integration system and electronic healthcare book, systems for planning visits of patients and support of subsequent processes (possibility of integration into the hospital integration system), laboratory information systems (LIS), facility management, PACS, DICOM, electronic archives, data storing and also outsourcing, which is one of variants how to effectively solve problems of hospitals with rather large requirements for personal, financial and knowledge sources in innovations and administration of information systems. Clinical and complementary information systems. Data safety and protection of sensitive data. Basic technology aspects of the IS reliability and availability and application of data. Data communication standards. Integration of heterogeneous healthcare and medical systems. Legal aspects of the convergence of communications, financial services and media. Electronic identifier of the insured client. Quality of healthcare information systems. Certification of information systems in accordance with Law No. 365/2000 Sb. - support of the quality and safety of information system in healthcare services. eHealth - priority of the program eEurope and key application to wide-band initiative.			
17PBFLTV	Therapeutic Physical Training	KZ	1
17PBFMAZ	Management and Administration in Healthcare	KZ	1
Structure of the sector. Models of financing in healthcare services. Types and description of typical institutions and staff members in healthcare services. Interdisciplinary nature as a prerequisite of the contemporary health care. Architecture of healthcare institutions and their development. Structure and tasks and activities of hospitals from the viewpoint of patients and healthcare professionals. Administrative works in diagnostic and therapeutic processes. Planning of diagnostic procedures - optimization. Planning of complex therapeutic approaches. Planning of radiation therapy. Administrative works associated with technical provisions at healthcare institutions.			
17PBFMMT	Massage and Soft Tissues Techniques	KZ	2
Practical mastering of palpation procedures, theoretical and practical knowledge of particular types of massages and other techniques for soft tissues, contraindications and methods of application. Demonstrations and basic training.			
17PBFMVP	Methodology of Scientific Research	Z	2
Introduction to the issue of scientific work, its significance for society, the development of science in the Czech Republic, especially in the XX. century. Introduction to principles of scientific work, explanation of basic concepts, with the grant policy, by way of presentation and promotion of results. Scientific work in the European Union. Working with literary and Internet information sources, organization of work of scientific libraries and funding agencies. Mastering the presentation and processing literature searches.			
17PBFNRFA	Neurophysiology	Z,ZK	3
Physiology of muscles. Muscle contractions, types of muscle contractions. Peripheral nerve physiology - the medulla. Locomotor functions of the cephalic trunk. Cerebellum, BG, cerebral cortex. Motor cortex. Physiology of receptors. Vestibular apparatus and its function. Physiology of the autonomic nervous system.			
17PBFNEUA	Neurology	Z,ZK	2
Teaching of basic knowledge concerning causes, diagnostics, symptomatology, therapy and prevention in neurological diseases with a special regard to possibilities of all the forms of the rehabilitation treatment. Principle of particular auxiliary examinations and their application particularly to the movement therapy. Practical exercises: anamnesis, basic neurological examination, demonstration of particular diagnoses/patients.			
17PBFOAR2	Practical Training at Ambulatory Rehabilitation Center II	KZ	5
17PBFOAR3	Practical Training at Ambulatory Rehabilitation Center III	KZ	12

17PBFOAR1	Practical Training at Ambulatory Rehabilitation Hospital Department I	KZ	4
17PBFOPR1	Practical Training at Rehabilitation Inpatient Department I.	KZ	4
17PBFOPR2	Practical Training at Rehabilitation Inpatient Department II.	KZ	3
17PBFOPR3	Practical Training at Rehabilitation Inpatient Department III	KZ	10
The aim of professional experience in inpatient and outpatient facilities is to acquire basic practical skills of a physiotherapist. Exercise program is the extent of the theoretical part of teaching. Types of patients with possibilities for the workplace, but always so in their package to provide full cross-section of basic physiotherapy diagnoses.			
17PBFORU1	Practical Training in Rehabilitation Institute I	KZ	4
17PBFORU2	Practical Training in Rehabilitation Institute II	KZ	4
17PBFORU3	Practical Training in Rehabilitation Institute III	KZ	10
17PBFOTP	Orthopedics and Traumatology of the Locomotor Apparatus	Z,ZK	3
Basic orthopaedics and traumatology of the locomotor apparatus. Complex outline of the prevention, diagnostics and therapy of locomotor apparatus disorders with the application of most modern trends in orthopaedic surgery with putting emphasize on subsequent rehabilitation. Complex outline of the locomotor apparatus traumatology with subsequent conservative therapy and next modern procedures of subsequent rehabilitation and inclusion of the patient into the society.			
17PBFPAS	Handicapped Movement Activities and Sports	Z	3
Acquainting with fitness and top sports of handicapped people. Sport as a part of the comprehensive therapy, support of the basal therapy. The use of movement and sport activities in the psychosocial rehabilitation. Social importance of the sport integration through the mediation of the sport into the majority society. Meeting active handicapped athletes.			
17PBFPAO	Prothetics and Orthotics	Z,ZK	3
Principles of the structure, function and use of particular types of prosthetic and orthotic tools, their application in individual types of involvements. Indications and contraindications of prosthetic tools, care for patients after amputations. Practical exercises: visit at prosthetic department, examples of the manufacture of prostheses and ortheses, measurements of patients, instruction and training for the use of prosthetic tools.			
17PBFPPO	First Aid	KZ	2
17PBFRPP	Rehabilitation Propaedeutic	KZ	5
Outline of the complex of integral rehabilitation and procedures employed within the framework of the therapeutic, occupational, social and pedagogical rehabilitation. Basic terminology used in the rehabilitation process. Practical exercises are focused on principles of certain procedures of examination in physiotherapy (orientation on the human body, examination of the aspect and palpation, examination of active and passive movements, fitness, breathing, mobility on the bed, ability of verticalization and gait) and basic physiotherapeutic actions (positioning, passive and active exercise, fitness exercise, breathing gymnastics, mobility on the bed, verticalization, handling with the patient, gait).			
17PBFSBP	Bachelor Thesis Seminar	Z	1
Acquainting with principles of accumulation of data, their processing and presentation in written and oral forms, search for literature, citation index, professional databases.			
17PBFSPR	Social and Occupational Rehabilitation	Z,ZK	3
Information about problems of social and occupational rehabilitation. Social solution for the patient, procedures and tools of the occupational rehabilitation. Incorporation of the handicapped person into the occupational process. System of the state social care.			
17PBFSPA1	Sports Activity I.	Z	1
17PBFSPA2	Sports Activity II.	Z	1
17PBFSPA3	Sports Activity III.	Z	1
17PBFVLG1	Internal Medicine and Geriatry I	Z	3
The subject provides a brief, clear and integral outline of medical disciplines, particularly internal medicine. The target is to acquaint students with basic diseases, with primary and secondary prevention of internal diseases and with their diagnostics, and define terms associated with the consideration of the patient health condition. The student should be able to compare and differentiate from each other methods of the medical examination, describe the procedure for the basic clinical examination and understand its principle and importance. He/she is supposed to have knowledge of approaches to and methods of monitoring the patient health condition.			
17PBFVLG2	Internal Medicine and Geriatry II	Z,ZK	3
The student is acquainted with basic problems of particular clinical disciplines, with most important features of diseases and possibilities of their treatment. Emphasize is put on diseases principally contributing to the mortality in the Czech Republic and those in which non-pharmacological prevention is effective and possible.			
17PBFVVK	Evolutionary Kinesiology	Z,ZK	2
Movement in the evolution. Prenatal kinesiology. Movement of a newborn and its control. Development of movement activities of toddlers and their examination. Basic locomotor system development defects. Movements of school and pre-school children. Most frequently occurring disorders of the locomotor system in the period of adolescence. Children and sports, indication of movement activities.			
17PBFZFA	Fundamentals of Pharmacology	KZ	2
The course focuses on introduction to the origins and sources of medicinal substances, defines the terms drug, drug terminology, and their place in the pharmacopoeia. To understand the effects of drugs are also lectures focused on the issues of pharmacokinetics and models suitably chosen examples are demonstrated kinetics of drugs in the body. Based on these findings are discussed systematically basic pharmaceutical group focused on the mechanism of their effects			
17PBFZLCH	Fundamentals of Medical Chemistry and Biochemistry	Z,ZK	4
17PBFZOT	Fundamental Professional Terminology	KZ	1
Latin alphabet, pronunciation, stress - Greek alphabet. Latin, English, German and Russian words to be used by healthcare professionals. Common terms for parts of the body, general medical expressions and descriptive terms concerning diseases and injuries. Terms concerning basic medical material and equipment. General terms related to the first aid. Important information about the patient health condition, medical dispatch form. Terms for fractures, wounds and injuries. Names of different types of diagnoses and prognoses. Names of different therapeutic procedures.			
17PBFZPF	Fundamental Pathophysiology	Z,ZK	3
This course provides a brief overview of the pathophysiology of organ systems, based on knowledge of their normal function. Attention is focused on the failure of organ function, leading to the emergence of specific pathophysiological syndromes. Knowledge of these general pathophysiological mechanisms to the understanding of the genesis of specific diseases.			
17PBFZPA	Fundamentals of Pathology	Z,ZK	3
Subject is to understand the basic pathological processes of the human organism. Teaching pathology in general terms, the teaching of the nature of pathological processes in various body systems. The effects of pathological processes at different parts of the musculoskeletal system and the musculoskeletal system as a whole and its function.			
17PBFZPS	Fundamentals of Pedagogy and Special Pedagogy	Z,ZK	1
Students will be introduced into problems of methodology and acquainted with basic procedures of pedagogical approaches and work. They will acquire detailed information about specific features of people with physical involvement or long-term adverse health condition and also about philosophy, methods, specific features and possibilities of special pedagogic support of handicapped people in the educational process. They will be acquainted in details with contents and problems of logopaedics, ophthalmology, typhlopaedics, psychopaedics, surdopaedics and etopaedics.			

17PBFZPP	Fundamental Psychiatry and Psychotherapy	Z,ZK	2
Position of psychiatry and organization of psychiatric care.Relationships between psychiatry and psychology, neurology and other related disciplines. Psychosomatic effects. Disorders of particular mental functions. Basic themes: Cognition and its disorders, illusions, hallucinations. Life meaning deprivation. Emotions. Conditions and its disorders. Memory and intellectual capacity. Thinking and its disorders. Biological methods of the treatment. Personality and its disorders. Neurotic disorders and stress-induced disorders. Manifestations of most frequently occurring mental diseases: schizophrenia. Manifestations of most frequently occurring mental diseases: affective disorders. Dependences. Oligophrenia and dementia. Problems of paediatric psychiatry. Disorders of the mental development.			
17PBFZRM1	Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method I	Z	3
17PBFZRM2	Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method II	ZK	4
17PBFZSI	Fundamentals of Statistics and Informatics	Z,ZK	3
The students are acquainted with principles of the scientific research methodology, accumulation of input data, formulation of hypotheses, evaluation of results. Principles of statistical methods and their use and interpretation. The subject matter presented includes Random variables, their distribution, characteristics, transformations, and the population sample, estimates of parameters, testing hypotheses. The exercises are focused on practical work with Microsoft Office Excel 2010.			
17PBFZTV1	Medical Physical Education I.	Z	1
17PBFZTV2	Medical Physical Education II.	Z	1
17PBFZB	Medical Biophysics	Z,ZK	4
Basic information about the nature of the effects of physical factors on the organism. The various physical therapies, their indications and contraindications, physiological effects of the nature of electricity, heat, optical radiation, laser, ultrasound, pressure on the organism.			
17PBFZLN	Legislation in Health Care	Z,ZK	2
17PBFZBP	Bachelor Thesis	Z	4
Independent final project for the Bachelor´s degree study program. Student will choose a topic from a range of topics related to his or her branch of study that will be specified by branch department. The Bachelor´s project will be defendend in front of the board of examiners for the comprehensive final examination.			

List of courses of this pass:

Code	Name of the course	Completion	Credits
17BOZP	Occupational Safety and Health, Fire Protection and First Aid	Z	0
17PBFAOK	Anatomy and General Kinesiology	Z,ZK	5
General anatomy comprises the general nomenclature, directions and areas within the human body and brief outline of the general structure of particular tissues originating from individual germ layers (embryonal endoblast, mesoblast and ectoblast). Special anatomy deals with the structure and names of parts of individual organ systems. The individual systems are as follows: bones (osteology), joints (arthrology), parts of the locomotor apparatus (proximal and distal limbs, girdles, spine and skull), muscles (myology), endocrine glands, sexual glands, heart and circulation system (arteries, veins and lymph system), peripheral and central nervous system, sensory apparatus, skin and mammary gland. The delimitation of the term kinesiology is presented as a science dealing with the body movements. Biomechanical characteristics of tissues forming the locomotor apparatus. Visceral organs, blood streaming. Biomechanics of breathing and function of skeletal muscles beyond the locomotor apparatus. Kinesiology of standing, walking, individual body parts.			
17PBFAOKS	Anatomy and Special Kinesiology	Z,ZK	4
17PBFBB	Biomechanics and Biomaterials	Z,ZK	4
17PBFBLG	Biology	Z,ZK	4
Principles of cellular and developmental biology, genetics and possible genetic interactions.			
17PBFBLT	Balneotherapy	Z,ZK	2
Fundamentals of balneology, natural medicinal resources, and Balneotechnology balneohygieny, classical balneology procedures and their effects on the body, application of rehabilitation and physical therapy in various hydrotherapy procedures, mechanisms of action. Suitability of spa treatments for individual diseases and specific balneace. Importance of spas in the CR and its specifics in the world.			
17PBFEGT	Ergotherapy and Ergonomy	KZ	2
17PBFEVF	Ethics in Physiotherapy	KZ	2
Subject introduces students to fundamental ethical issues in medical ethics due to future professional orientation. It develops students' ability to think in ethical contexts, discuss, argue and defend their views in ethical dilemma situations, which brings medical environment.			
17PBFF1VP	Physiothrapy I. - Examination Procedures	Z	2
17PBFF2TP	Physiotherapy II - Therapeutic Procedures, Methods and Concepts	Z,ZK	3
17PBFFLM	Physical Therapeutic Methods	Z,ZK	2
The student is acquainted with the nature of physical processes that are used in the instrument in medical rehabilitation therapies and their effects on physiological and pathophysiological happening in the body and thus their possible use in the treatment of various pathological conditions. Are analyzed in detail the various indications and contraindications, appropriate physical parameters, possible interactions with other treatments, including pharmacotherapy. Attention is focused on the safety device used by physiotherapy, legal issues and the manner of application procedures.			
17PBFFPE	Physiotherapy in Paediatrics	Z,ZK	4
Basic paediatrics, characteristics of diseases specific for children. Familiarization with basic examination and therapeutic approaches in paediatric therapeutic rehabilitation. Familiarization with rehabilitation procedures in selected paediatric diagnoses. Familiarization with psychomotor development in children. The rehabilitation of children can be divided into transient rehabilitation (subsequent care performed immediately next to the treatment) and permanent rehabilitation which concerns children with long-term or permanent health handicaps. Ergotherapy in children as a component of therapeutic rehabilitation.			
17PBFFZN	Physiology and Basic Neuroscience	Z,ZK	3
17PBFGYP	Gyneacology and Obstetrics	KZ	2
17PBFHAE	Hygiene and Epidemiology	KZ	2
Hygiene: The subject provides an outline in the field of general and municipal hygiene. It is particularly aimed at hygienic requirements of the occupational environment for selected physical and chemical components. The general and municipal hygiene: Development of the hygiene basic provisions concerning hygienic components and their organization. Hygiene of the atmosphere, soil, water and hygiene of settlements. Hygienic requirements for the occupational environment: Occupational hygiene. Physical factors in the occupational environment, temperature and moisture. Conditions of working sites (ventilation and air conditioning, air exchange, heating). Illumination. Visual comfort. Heat. Thermal comfort. Provisions against the noise. Provisions against vibrations. Effects of the noise on the human organism. Harmful chemical compounds and aerosols in the occupational environment.			

Safety of the occupational environment. Hygiene of waste materials and their removal. Waste waters, solid waste materials, hygiene of water. Protection of the public health and safety and human health protection at work. Risk working sites. Handling with hazardous substances and chemical products. Authorities of the public health protection, state health surveillance. Legislation, roles of the state administration, sanctions, administrative procedures and provisions in extraordinary events. Epidemiology: Origination and propagation of infectious diseases, i.e. bacterial, viral and parasitic infections. Pathogenesis of the diseases induced, outline of infectious agents. Outline of causes of the origination and propagation of non-infectious diseases, particularly of civilization diseases. Collective immunity, susceptibility and resistance. Active immunization (principle, current use in practice). Passive immunization, vaccines. Safety of vaccines, post-vaccination reactions, vaccination contraindications. Strategy of vaccination programmes. Epidemiological measures focused on the source elimination. Epidemiological precautions aimed at the transmission discontinuation. Basic evaluation of health risks. Methods and procedures of epidemiological monitoring.

17PBFISZ	Information Systems in Health Services	Z,ZK	3

The scope of the subject is acquainting the student with methods of planning and implementation of applications of information technologies to healthcare services. In the introduction to the subject, the students will be familiarized with problems of database systems in general. These are particularly hospital information systems, manager information systems, integration of healthcare information systems, implementation of the system for connection to the electronic healthcare book, i.e. implementation of the interface between the hospital integration system and electronic healthcare book, systems for planning visits of patients and support of subsequent processes (possibility of integration into the hospital integration system), laboratory information systems (LIS), facility management, PACS, DICOM, electronic archives, data storing and also outsourcing, which is one of variants how to effectively solve problems of hospitals with rather large requirements for personal, financial and knowledge sources in innovations and administration of information systems. Clinical and complementary information systems. Data safety and protection of sensitive data. Basic technology aspects of the IS reliability and availability and application of data. Data communication standards. Integration of heterogeneous healthcare and medical systems. Legal aspects of the convergence of communications, financial services and media. Electronic identifier of the insured client. Quality of healthcare information systems. Certification of information systems in accordance with Law No. 365/2000 Sb. - support of the quality and safety of information system in healthcare services. eHealth - priority of the program eEurope and key application to wide-band initiative.

17PBFLTV	Therapeutic Physical Training	KZ	1
17PBFMAZ	Management and Administration in Healthcare	KZ	1

Structure of the sector. Models of financing in healthcare services. Types and description of typical institutions and staff members in healthcare services. Interdisciplinary nature as a prerequisite of the contemporary health care. Architecture of healthcare institutions and their development. Structure and tasks and activities of hospitals from the viewpoint of patients and healthcare professionals. Administrative works in diagnostic and therapeutic processes. Planning of diagnostic procedures - optimization. Planning of complex therapeutic approaches. Planning of radiation therapy. Administrative works associated with technical provisions at healthcare institutions.

17PBFMMT	Massage and Soft Tissues Techniques	KZ	2

Practical mastering of palpation procedures, theoretical and practical knowledge of particular types of massages and other techniques for soft tissues, contraindications and methods of application. Demonstrations and basic training.

17PBFMVP	Methodology of Scientific Research	Z	2

Introduction to the issue of scientific work, its significance for society, the development of science in the Czech Republic, especially in the XX. century. Introduction to principles of scientific work, explanation of basic concepts, with the grant policy, by way of presentation and promotion of results. Scientific work in the European Union. Working with literary and Internet information sources, organization of work of scientific libraries and funding agencies. Mastering the presentation and processing literature searches.

17PBFNEUA	Neurology	Z,ZK	2

Teaching of basic knowledge concerning causes, diagnostics, symptomatology, therapy and prevention in neurological diseases with a special regard to possibilities of all the forms of the rehabilitation treatment. Principle of particular auxiliary examinations and their application particularly to the movement therapy. Practical exercises: anamnesis, basic neurological examination, demonstration of particular diagnoses/patients.

17PBFNRFA	Neurophysiology	Z,ZK	3

Physiology of muscles. Muscle contractions, types of muscle contractions. Peripheral nerve physiology - the medulla. Locomotor functions of the cephalic trunk. Cerebellum, BG, cerebral cortex. Motor cortex. Physiology of receptors. Vestibular apparatus and its function. Physiology of the autonomic nervous system.

17PBFOAR1	Practical Training at Ambulatory Rehabilitation Hospital Department I	KZ	4
17PBFOAR2	Practical Training at Ambulatory Rehabilitation Center II	KZ	5
17PBFOAR3	Practical Training at Ambulatory Rehabilitation Center III	KZ	12
17PBFOPR1	Practical Training at Rehabilitation Inpatient Department I.	KZ	4
17PBFOPR2	Practical Training at Rehabilitation Inpatient Department II.	KZ	3
17PBFOPR3	Practical Training at Rehabilitation Inpatient Department III	KZ	10

The aim of professional experience in inpatient and outpatient facilities is to acquire basic practical skills of a physiotherapist. Exercise program is the extent of the theoretical part of teaching. Types of patients with possibilities for the workplace, but always so in their package to provide full cross-section of basic physiotherapy diagnoses.

17PBFORU1	Practical Training in Rehabilitation Institute I	KZ	4
17PBFORU2	Practical Training in Rehabilitation Institute II	KZ	4
17PBFORU3	Practical Training in Rehabilitation Institute III	KZ	10
17PBFOTP	Orthopedics and Traumatology of the Locomotor Apparatus	Z,ZK	3

Basic orthopaedics and traumatology of the locomotor apparatus. Complex outline of the prevention, diagnostics and therapy of locomotor apparatus disorders with the application of most modern trends in orthopaedic surgery with putting emphasize on subsequent rehabilitation. Complex outline of the locomotor apparatus traumatology with subsequent conservative therapy and next modern procedures of subsequent rehabilitation and inclusion of the patient into the society.

17PBFPAO	Prothetics and Orthotics	Z,ZK	3

Principles of the structure, function and use of particular types of prosthetic and orthotic tools, their application in individual types of involvements. Indications and contraindications of prosthetic tools, care for patients after amputations. Practical exercises: visit at prosthetic department, examples of the manufacture of prostheses and ortheses, measurements of patients, instruction and training for the use of prosthetic tools.

17PBFPAS	Handicapped Movement Activities and Sports	Z	3

Acquainting with fitness and top sports of handicapped people. Sport as a part of the comprehensive therapy, support of the basal therapy. The use of movement and sport activities in the psychosocial rehabilitation. Social importance of the sport integration through the mediation of the sport into the majority society. Meeting active handicapped athletes.

17PBFPPO	First Aid	KZ	2
17PBFRPP	Rehabilitation Propaedeutic	KZ	5

Outline of the complex of integral rehabilitation and procedures employed within the framework of the therapeutic, occupational, social and pedagogical rehabilitation. Basic terminology used in the rehabilitation process. Practical exercises are focused on principles of certain procedures of examination in physiotherapy (orientation on the human body, examination of the aspect and palpation, examination of active and passive movements, fitness, breathing, mobility on the bed, ability of verticalization and gait) and basic physiotherapeutic actions (positioning, passive and active exercise, fitness exercise, breathing gymnastics, mobility on the bed, verticalization, handling with the patient, gait).

17PBFSBP	Bachelor Thesis Seminar	Z	1

Acquainting with principles of accumulation of data, their processing and presentation in written and oral forms, search for literature, citation index, professional databases.

17PBFSPA1	Sports Activity I.	Z	1
17PBFSPA2	Sports Activity II.	Z	1

17PBFSPA3	Sports Activity III.	Z	1
17PBFSPR	Social and Occupational Rehabilitation	Z,ZK	3
Information about problems of social and occupational rehabilitation. Social solution for the patient, procedures and tools of the occupational rehabilitation. Incorporation of the handicapped person into the occupational process. System of the state social care.			
17PBFVLG1	Internal Medicine and Geriatry I	Z	3
The subject provides a brief, clear and integral outline of medical disciplines, particularly internal medicine. The target is to acquaint students with basic diseases, with primary and secondary prevention of internal diseases and with their diagnostics, and define terms associated with the consideration of the patient health condition. The student should be able to compare and differentiate from each other methods of the medical examination, describe the procedure for the basic clinical examination and understand its principle and importance. He/she is supposed to have knowledge of approaches to and methods of monitoring the patient health condition.			
17PBFVLG2	Internal Medicine and Geriatry II	Z,ZK	3
The student is acquainted with basic problems of particular clinical disciplines, with most important features of diseases and possibilities of their treatment. Emphasize is put on diseases principally contributing to the mortality in the Czech Republic and those in which non-pharmacological prevention is effective and possible.			
17PBFVVK	Evolutionary Kinesiology	Z,ZK	2
Movement in the evolution. Prenatal kinesiology. Movement of a newborn and its control. Development of movement activities of toddlers and their examination. Basic locomotor system development defects. Movements of school and pre-school children. Most frequently occurring disorders of the locomotor system in the period of adolescence. Children and sports, indication of movement activities.			
17PBFZB	Medical Biophysics	Z,ZK	4
Basic information about the nature of the effects of physical factors on the organism. The various physical therapies, their indications and contraindications, physiological effects of the nature of electricity, heat, optical radiation, laser, ultrasound, pressure on the organism.			
17PBFZBP	Bachelor Thesis	Z	4
Independent final project for the Bachelor´s degree study program. Student will choose a topic from a range of topics related to his or her branch of study that will be specified by branch department. The Bachelor´s project will be defendend in front of the board of examiners for the comprehensive final examination.			
17PBFZFA	Fundamentals of Pharmacology	KZ	2
The course focuses on introduction to the origins and sources of medicinal substances, defines the terms drug, drug terminology, and their place in the pharmacopoeia. To understand the effects of drugs are also lectures focused on the issues of pharmacokinetics and models suitably chosen examples are demonstrated kinetics of drugs in the body. Based on these findings are discussed systematically basic pharmaceutical group focused on the mechanism of their effects			
17PBFZLCH	Fundamentals of Medical Chemistry and Biochemistry	Z,ZK	4
17PBFZLN	Legislation in Health Care	Z,ZK	2
17PBFZOT	Fundamental Professional Terminology	KZ	1
Latin alphabet, pronunciation, stress - Greek alphabet. Latin, English, German and Russian words to be used by healthcare professionals. Common terms for parts of the body, general medical expressions and descriptive terms concerning diseases and injuries. Terms concerning basic medical material and equipment. General terms related to the first aid. Important information about the patient health condition, medical dispatch form. Terms for fractures, wounds and injuries. Names of different types of diagnoses and prognoses. Names of different therapeutic procedures.			
17PBFZPA	Fundamentals of Pathology	Z,ZK	3
Subject is to understand the basic pathological processes of the human organism. Teaching pathology in general terms, the teaching of the nature of pathological processes in various body systems. The effects of pathological processes at different parts of the musculoskeletal system and the musculoskeletal system as a whole and its function.			
17PBFZPF	Fundamental Pathophysiology	Z,ZK	3
This course provides a brief overview of the pathophysiology of organ systems, based on knowledge of their normal function. Attention is focused on the failure of organ function, leading to the emergence of specific pathophysiological syndromes. Knowledge of these general pathophysiological mechanisms to the understanding of the genesis of specific diseases.			
17PBFZPP	Fundamental Psychiatry and Psychotherapy	Z,ZK	2
Position of psychiatry and organization of psychiatric care.Relationships between psychiatry and psychology, neurology and other related disciplines. Psychosomatic effects. Disorders of particular mental functions. Basic themes: Cognition and its disorders, illusions, hallucinations. Life meaning deprivation. Emotions. Conditions and its disorders. Memory and intellectual capacity. Thinking and its disorders. Biological methods of the treatment. Personality and its disorders. Neurotic disorders and stress-induced disorders. Manifestations of most frequently occurring mental diseases: schizophrenia. Manifestations of most frequently occurring mental diseases: affective disorders. Dependences. Oligophrenia and dementia. Problems of paediatric psychiatry. Disorders of the mental development.			
17PBFZPS	Fundamentals of Pedagogy and Special Pedagogy	Z,ZK	1
Students will be introduced into problems of methodology and acquainted with basic procedures of pedagogical approaches and work. They will acquire detailed information about specific features of people with physical involvement or long-term adverse health condition and also about philosophy, methods, specific features and possibilities of special pedagogic support of handicapped people in the educational process. They will be acquainted in details with contents and problems of logopaedics, ophthalmology, typhlopaedics, psychopaedics, surdopaedics and etopaedics.			
17PBFZRM1	Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method I	Z	3
17PBFZRM2	Fundamentals of Reflex and Manual Methods - Bobath Concept, L. Mojžíšová Method II	ZK	4
17PBFZSI	Fundamentals of Statistics and Informatics	Z,ZK	3
The students are acquainted with principles of the scientific research methodology, accumulation of input data, formulation of hypotheses, evaluation of results. Principles of statistical methods and their use and interpretation. The subject matter presented includes Random variables, their distribution, characteristics, transformations, and the population sample, estimates of parameters, testing hypotheses. The exercises are focused on practical work with Microsoft Office Excel 2010.			
17PBFZTV1	Medical Physical Education I.	Z	1
17PBFZTV2	Medical Physical Education II.	Z	1

For updated information see http://bilakniha.cvut.cz/en/FF.html
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