

UNIVERSITY OF PÉCS
FACULTY OF HEALTH SCIENCES
DOCTORAL SCHOOL OF HEALTH SCIENCES

DOCTORAL (PHD) CURRICULUM



PÉCS
2021

University of Pécs
Faculty of Health Sciences
Doctoral School of Health Sciences
Doctoral (PhD) Curriculum

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I. PhD Courses of the Doctoral School of Health Sciences

Code	Lecturer	Title	Credit	Department
FDIP1BOJ1	Prof. Dr. Bódis József	Fundaments of research in health sciences	1 kredit (14 óra)	PTE ETK
Purpose:	Getting to know the basics of Health Science Research. <ol style="list-style-type: none"> 1. The relationship between theory and practice 2. Types of research 3. General classification of research 4. Types of research 5. Process 6. Elements of the research plan 1-1 Presentation of specific research			

Code	Lecturer	Title	Credit	Department
FFDIP4BOI2	Prof. Dr. Boncz Imre	Fundaments of finances in health care	2 kredit (28 óra)	PTE ETK
Purpose:	The aim of the course is to present the methodological issues of health financing. Hungary and the outlook for Europe in the light of health financing.			

Code	Lecturer	Title	Credit	Department
FDIP5JUK1	Dr. Juhász Krisztina	Epidemiology I.	1 kredit = 14 óra	PTE ETK
Purpose:	Students should become familiar with methods for comparing the public health importance of diseases of different natures. Students should get acquainted with the sources on the basis of which the health status of the Hungarian population can be described. The student will be able to assess the relative public health significance of the problems at the heart of their own research and be able to interpret their research results from a public health perspective.			

Code	Lecturer	Title	Credit	Department
FDIP5JES1	Dr. Raposa L. Bence	Statistical methods in research I.	2 = 28 óra	PTE ETK
Purpose:	The aim of the 1st semester of Statistics is to provide theoretical and (computer) practical knowledge for the processing and evaluation of empirical data. Methods of scientific research. Experiment versus survey. Qualitative and quantitative data. Basics of probability calculus. Population and sample, sample selection. Descriptive statistics. Estimation and hypothesis testing. Estimation of confidence intervals. One- and two-sample procedures for expected value (sign tests, Mann-Whitney test, chi-square test, linear regression and correlation calculation, etc.). Using the SPSS statistical software package.			

Code	Lecturer	Title	Credit	Department
FDIP5SEM1	Sélleyné dr. Gyuró Monika PhD.habil	Scientific English: writing publications	1 kredit = 14 óra	PTE ETK
Purpose:	The aim of the course is to acquaint students with the requirements for effective scientific presentation in formal, linguistic and stylistic areas. As well as to enable students to apply the appropriate structure of scientific oral communications, the occasional use of different language registers, the conscious transmission and reception of non-verbal cues, the use of visual aids, and the handling of bucks, lamp fever, and other accidental situations.			

Code	Lecturer	Title	Credit	Department
FDIP9LOS1	Dr. Lohner Szimonetta	First steps of conducting a systematic review	1 kredit = 14 óra	PTE ETK
Purpose:	A systematic review is a means of identifying, evaluating and interpreting all available research relevant to a particular research question. In contrast to the traditional or narrative literature reviews, systematic literature reviews are using a rigorous and well-defined approach for summarizing the scientific literature. During the course, interactive lectures will enable participants to gain the knowledge and skills necessary for the effective planning of a systematic review and for carrying out structured literature searches.			

Code	Lecturer	Title	Credit	Department
FDIP5JES2	Dr. Raposa L. Bence	Statistical methods in research II.	2 kredit = 28 óra	PTE ETK
Purpose:	The course aims to consolidate the research skills of Ph.D. students in the practice and research of health care. The students will develop a general understanding of research as a means of professional development and advancement. This course provides the knowledge and skills required to carry out and evaluate mainly quantitative and qualitative research projects on the different areas of health care. Another goal that the students to gain essential skills in planning, organizing and evaluating scientific studies on health care.			

Code	Lecturer	Title	Credit	Department
FDIP4BOI2	Prof. Dr. Boncz Imre	Methodological questions of economic analyses in health care	2 kredit =28 óra	PTE ETK
Purpose:	The aim of the course is to transfer the methodological knowledge of health economics analyzes.			

Code	Lecturer	Title	Credit	Department
FDIP5SAJ1	Dr. Juhász Krisztina	Epidemiology II.	1 kredit =14 óra	PTE ETK
Purpose:	<p>Students should get acquainted with the process of epidemiological studies, the principles of study design, the ways of evaluating the aspects of precision and validity, the basic concepts related to causality, external validity, meta-analysis.</p> <p>Students should be able to design studies that focus on relevant issues and produce reliable results.</p> <p>The student learns how to set up a hypothesis, design, execute, evaluate, and present studies through their own sample project using the curriculum compiled by WHO and the CDC computer program.</p>			

Code	Lecturer	Title	Credit	Department
FDIP8SGYM101	Séleyné Gyuró Mónika	Academic Public Speaking	1 kredit =14 óra	PTE ETK
Purpose:	<p>Students should become familiar with the correct linguistic, stylistic, and editorial requirements for publications intended for international publication, as well as the linguistic and structural requirements of the scientific genres that form part of research and scientific publications.</p> <p>The course also includes written communication with the publishing committee of the publishers.</p>			

Code	Lecturer	Title	Credit	Department
FNDIP9LOS2	Dr. Lohner Szimonetta	Systematic reviews: collecting and combining data	1 kredit =14 óra	PTE ETK
Purpose:	<p>Systematic review uses robust methods to reduce bias in the gathering, summarizing, presenting, interpreting, and reporting of the research evidence.</p>			

Code	Lecturer	Title	Credit	Department
FDIPCLN01	Prof. Sergej M. Ostojic	Creatine for lifecycle nutrition: not just for athletes and muscle.	1 kredit =14 óra	PTE ETK
Purpose:	<p>This short course will present an overview of dietary creatine application in various non-athletic populations, with this dietary additive applicable as a promising amino acid derivative that might improve tissue bioenergetics and health outcomes during pregnancy, childhood and in elderly people. Besides, fundamental physiology of creatine metabolism will be discussed, along with short information about creatine availability in food products. Specifically, a possible role of dietary creatine in COVID-19 patients and convalescents will be presented, and future areas of research highlighted.</p>			

Code	Lecturer	Title	Credit	Department
FDIPLP1	Dr. Prémusz Viktória	Licensing process for biomedical / human research	1 kredit =14 óra	PTE ETK
Purpose:	<p>The aim of the topic is to acquaint students with the process of ethical licensing in Hungary, with the operating guidelines for ethics committees evaluating medical-biological research.</p> <p>Review of documents and requirements required for the authorization procedure in connection with the authorization procedure for non-interventional examinations and interventional examinations.</p>			

Code	Lecturer	Title	Credit	Department
FDIP6GYZ1	Dr. Gyöngyi Zoltán	Genetically Modified Organisms	1 kredit =14 óra	PTE ETK
Purpose:	<p>The application of genetically modified organisms (GMOs) gains more and more ground in food industry. Over the direct health effect, they have an impact on human economy and health modifying natural environment. The topic provokes social debate, in which, in lack of information, delusions also appear. The goal of the education is that students receive impartial knowledge of the role of GMOs in our life and their beneficial or possible harmful impact on our health. During the education students receive a knowledge of molecular background of production of GMOs, their role in agriculture, the appeared cases and possible health risks, their occurrence in foodstuffs, medical applications, tests, regulations, authorization, economic and social impacts.</p>			

Code	Lecturer	Title	Credit	Department
FDIPCP1	Dr. Bánfai Bálint	Current possibilities and challenges of first aid education and socialization	1kredit =14 óra	PTE ETK
Purpose:	<p>Laypeople and first responders have a very important role in different illnesses and accidents. Quick and high quality first aid can improve the victim's chance of survival. In Hungary, helping attitude is very low. To increase the helping attitude there is a need to improve the quality and frequency of first aid trainings. In countries with higher quality first aid education outcomes are more better. In Hungary, the majority of the population learn first aid in relationship with their driving licence, only one time which is not enough. The aim of this course is to present the principles of first aid and the possible methods, opportunities and challenges of its education and socialization.</p>			

Code	Lecturer	Title	Credit	Department
FDIPIIS1	Dr. Prémusz Viktória	Insights into scientometrics	1kredit =14 óra	PTE ETK
Purpose:	An important part of preparing for a doctoral (PhD) degree is meeting the publication requirements, and a thorough knowledge of scientometrics. It is important that students are informed about what publications are needed to meet the requirements, in which scientific journals it is worth publishing, and how to check their compliance. The aim of the course is to transfer the practical knowledge required for the above using international and Hungarian databases.			

Code	Lecturer	Title	Credit	Department
FDIP5AGI1	Dr. Ágoston István	Law in health care and its frontiers	1 kredit = 14 óra	PTE-ETK
Purpose:	The course, Health Law and Its Frontiers, aims to acquaint students with the specific areas of health law and the relevant knowledge of all related rights that are closely related to health, thus helping students to become more fully informed in these areas of law.			

Code	Lecturer	Title	Credit	Department
FDIPWH1	Dr. Hock Márta	Women's health	1 kredit = 14 óra	PTE-ETK
Purpose:	During the course, the attending students will overview the diseases and health conditions, which is related the topic of the Women's health. Students will overview the health and/or pathological musculoskeletal conditions and diseases and those physiotherapy during pregnancy. They gain insight the physical activity and its connection with the menopause. The course helps understand the parts of the first line physiotherapy of the pelvic floor disorders, and the diseases, e.g. different types of incontinences and prolapses.			

Code	Lecturer	Title	Credit	Department
FDIPPPA1	Dr. Szentpéteri József	Power Point - a key secret for thesis defense	1 kredit = 14 óra	PTE-ETK
Purpose:	The practical side of successful academic presentation and PhD defense is supported by the development of IT skills. The aim is to improve the presentation skills of the participants from a practical point of view, at skill level, in order to smoothly take over the technical barriers of expression during scientific lectures, PhD defense and professional careers. In the lectures and practices, we place special emphasis on the skill level development of the most commonly used softwares. We make content and form recommendations in line with current design trends, all distilled in a medical and health science style. Affected software: Power Point, OneDrive, MS Word, Mendeley, Endnote, Adobe Creative Suite.			

II. Research Programmes and Topics of the Doctoral School of Health Sciences

Programmes of the Doctoral School of Health Sciences
September 2021

Head of Doctoral School: Prof. Dr. Bódis, József MD., PhD., DSc.

	Area of Study	Name of Programmeleader / supervisor
Programme Nr.1 / PR-1	FRONTIERS OF HEALTH SCIENCES	Prof. Dr. Kovács, L. Gábor programme leader
E-1	The effects of social differences on the health care system	Dr. Betlehem, József supervisor
E-2	Role of simulated practical training in health care education	Dr. Betlehem, József supervisor
E-3	Characteristics of medical provision for various types of catastrophic events	Dr. Betlehem, József supervisor
E-4	The context of health economics, quality assurance and performance monitoring in case of public health programmes	Dr. Boncz, Imre supervisor, Dr. Gulácsi, László co-supervisor
E-5	Financial questions of the health care system	Dr. Boncz, Imre supervisor, Dr. Varga, Zoltán co-supervisor
E-7	Recreation - wellness - health condition	Dr. Jeges, Sára supervisor
E-8	System of values - quality of life - health condition	Dr. Jeges, Sára supervisor
E-9	Testing biorhythms. Examination of biological oscillators' regulatory mechanisms in animal testing models and in vitro system	Dr. Józsa, Rita supervisor
E-10	Chronobiological tests in shift work: examination of external factors' (light/non-light stimuli) effects on human physiological parameters with daily rhythmical variation (melatonin secretion, cardiovascular, hormonal, and mental functions)	Dr. Józsa, Rita supervisor
E-11	Fundamental questions in health care management	Dr. Kovács, L. Gábor supervisor,

		Dr. Boncz, Imre co-supervisor
E-12	The health status of the population and social factors.	Dr. Lampek, Kinga supervisor
E-13	Social and gender disparities of the population based on follow-up studies in Baranya County, Hungary	Dr. Lampek, Kinga supervisor
E-14	Diversity and prejudice. The health status of the Roma population in Hungary and their relationship with the health institutions	Dr. Lampek, Kinga supervisor
E-15	Effects of working in three-shift system on biorhythm.	Dr. Oláh, András supervisor, Dr. Ács, Pongrác co-supervisor
E-16	Linguistic aspects of health sciences	Dr. Rébék-Nagy, Gábor supervisor, Dr. Boronkai, Dóra co-supervisor
E-17	Socializing effects of school and family on pupils' lifestyle	Dr. Rétsági, Erzsébet supervisor
E-18	Appearance of health related values among primary and secondary school pupils	Dr. Rétsági, Erzsébet supervisor
E-19	Study of recreational activities among various age groups, with special interest in their physical activity	Dr. Rétsági, Erzsébet supervisor, Dr. Ács, Pongrác co-supervisor
E-20	Epidemiological investigation of territorial health inequalities	Dr. Sándor, János supervisor
E-21	Health status monitoring by secondary database utilization	Dr. Sándor, János supervisor
E-22	Epidemiological investigation of the etiology, and the prevention's and health care services' quality for non-infectious diseases	Dr. Sándor, János supervisor
E-24	Immune system and physical and mental health – the role of recreational sports in health preservation, and the paralell change of exertion ability	Dr. Wilhelm, Márta supervisor
E-25	Determining fitness of elite sportsmen with biochemical and exertion physiological methods	Dr. Wilhelm, Márta supervisor, Dr. Tékus, Éva co-supervisor
E-26	Elaboration and characterization of nanomedicinal systems	Dr. Kovács, L. Gábor supervisor, Dr. Fodor, Bertalan co-supervisor
E-27	Special situations in emergency care	Dr. Betlehem, József supervisor

E-28	Role of social support and activity in preserving and restore a good health condition	Dr. Betlehem, József supervisor, Dr. Gerevich, József co-supervisor
E-29	Exercise induced muscle damage and adaptation mechanisms during long-term resistance training	Dr. Wilhelm, Márta supervisor, Dr. Váczi, Márk co-supervisor
E-30	Neuromuscular adaptations to resistance training	Dr. Wilhelm, Márta supervisor, Dr. Váczi, Márk co-supervisor
E-32	The role of physical activity and sports in health improvement	Dr. Tóth, Ákos Levente supervisor
E-33	Health condition of Hungarian people with disabilities, and possible directions of development in terms of equal opportunities	Dr. Bódis, József supervisor, Dr. Chronowski, Nóra co-supervisor
E-34	Examination of Hungarian medicinal waters using randomised controlled double blind clinical studies	Dr. Varga, Csaba supervisor
E-35	Integrative Medicine as a treatment for stress release of different origins	Dr. Hegyi, Gabriella supervisor
E-36	Inhancement of fitness, reduction of stress-response , improving quality of Life by CAM therapies	Dr. Hegyi, Gabriella supervisor, Dr. Szőke, Henrik co-supervisor
E-37	Integrative Medicine: demand and acceptance of CAM, possibilities of inserting into Health Care System	Dr. Hegyi, Gabriella supervisor, Dr. Szőke, Henrik cosupervisor
E-39	International comparative examination of professional minimal conditions' to improve health care services	Dr. Oláh, András supervisor
E-40	Possibilities to improve nursing guidelines and protocols	Dr. Oláh, András supervisor
E-42	Development and implementation of electronic nursing documentation	Dr. Oláh, András supervisor
E-43	Psycho-neuro-immunology in clinical practice	Dr. Repa, Imre supervisor
E-44	Disability and quality of life	Dr. Pusztafalvi, Henriette supervisor
E-45	Examination of the nonlinear distortion of the ear	Dr. Pytel, József supervisor, Dr. Lujber, László co-supervisor
E-46	Examination and treatment of motion instability in neurological diseases	Dr. Nagy, Ferenc supervisor,

		Dr. Kovács, Norbert co-supervisor
E-47	Complex analysis and examination of economic effects of the foreign-language medical education	Dr. Miseta, Attila supervisor
E-48	Health science aspects of free flap breast reconstruction	Dr. Kornya, László supervisor
E-49	Comparison of surgical suture materials	Dr. Kornya, László supervisor
E-50	Comparison of breast reconstruction surgeries	Dr. Kornya, László supervisor
E-51	Role of communication in the health care system	Dr. Barcsi, Tamás supervisor, Dr. Pusztafalvi, Henriette co-supervisor
E-52	Terminological communication in health sciences	Dr. Warta, Vilmos supervisor
E-53	Use of microchips in laboratory diagnostics of fertility effectiveness during in vitro fertilization	Dr. Kovács, L. Gábor supervisor
E-54	Effect of the GP-care's quality on growth of life expectancy	Dr. Kovács, L. Gábor supervisor, Dr. Balogh, Sándor co-supervisor
E-56	Social aspects of medical communication	Dr. Lampek, Kinga supervisor, Dr. Máté, Orsolya co-supervisor
E-57	Salutogenesis in university education. Examination of shift of coherence among students of University of Pécs, Faculty of Health Sciences and Faculty of Sciences, depending on the study program	Dr. Jeges, Sára supervisor, Dr. Tóth, Ákos co-supervisor
E-58	The aspects of patients' right and labor law in health care	Dr. Boncz, Imre supervisor, Dr. Ágoston, István co-supervisor
E-59	The current issues of the health capacity regulation and the resource allocations	Dr. Boncz, Imre supervisor, Dr. Ágoston, István co-supervisor
E-60	The current questions and examination of the sex education in the educational institutions	Dr. Pusztafalvi, Henriette supervisor Dr. Gyuró, Mónika co-supervisor
E-61	Historical epidemiology studies	Dr. Pusztafalvi, Henriette supervisor
E-62	The effect of physical activity in different kind of neurodegenerative diseases: biomechanical and molecular biological studies	Dr. Atlasz, Tamás supervisor,

		Dr. Váczi, Márk co-supervisor
E-63	International competencies in health care	Dr. Rébék-Nagy, Gábor supervisor, Dr. Németh, Tímea co-supervisor
E-64	Prevalence of periodontal diseases among Hungarian population	Dr. Radnai, Márta supervisor
E-65	The change of the effectiveness of acute care due to integrative education	Dr. Betlehem, József supervisor, Dr. Oláh, Tibor co-supervisor
E-66	Decision making in the emergency care	Dr. Radnai, Balázs supervisor
E-67	Analysis of one-day surgical utilization indicators	Dr. Boncz, Imre supervisor, Dr. Endrei, Dóra co-supervisor
E-68	Role of animal-assisted therapy in the recreation	Dr. Tóth, Ákos Levente supervisor
E-69	Utilizaion and health insurance indicators of outpatient physiotherapy activities	Dr. Molics, Bálint supervisor, Dr. Boncz, Imre co-supervisor
E-70	The study of the correspondence of sence of coherence, parenting styles and health behavior	Dr. Csima, Melinda supervisor
E-71	Health monitoring	Dr. Vitrai, József supervisor
E-72	Research of intergrated health care systems	Dr. Balogh, Sándor supervisor, Dr. Papp, Renáta co-supervisor
E-73	Patient rights, opportunities of patient rights enforcement in practice.	Dr. Endrei, Dóra supervisor, Dr. Ágoston, István co-supervisor
E-74	Human resource aspects of health care system at policy and institutional level	Dr. Endrei, Dóra supervisor, Dr. Boncz, Imre co-supervisor
E-75	Access to healthcare professionals work satisfaction and health status determining factors	Dr. Lampek, Kinga supervisor, Dr. Németh, Anikó co-supervisor
E-76	Regional differences in quality of life	Dr. Takács, Péter supervisor

E-77	Health care and financial aspects of quality assurance	Dr. Endrei, Dóra supervisor, Dr. Boncz, Imre co-supervisor
E-78	Psychological and Spiritual Healthcare in Philosophy and Health Sciences	Dr. Barcsi, Tamás supervisor, Dr. Kovács, Gusztáv co-supervisor
E-79	Clinical and economic issues in health technology assesment	Dr. Boncz, Imre supervisor, Dr. Zemplényi, Antal co-supervisor
E-80	Research about the preferences of partner choice and the factors that influence it	Dr. Brantmüller, Éva supervisor, Dr. Pakai, Annamária co-supervisor
E-81	The Practice of analytic chemical methods in the personal identification	Dr. Márk, László supervisor, Dr. Wiegand, Norbert co-supervisor
E-82	Recovery from perinatal loss – Bereavement support	Dr. Lampek, Kinga supervisor, Dr. B. Erdős, Márta co-supervisor
E-83	The impact of migration on health care	Dr. Kobolka, István témavezető
E-84	The study of the correspondence of learning, learning outcomes and mental hygiene	Dr. Deutsch, Krisztina supervisor
E-85	The study of the correspondence of sence of coherence, health behavior and health status in different occupational groups	Dr. Deutsch, Krisztina supervisor
E-86	Transformation of health sciences and science popularization in the digital age	Dr. Csongor, Alexandra supervisor
E-87	Medical and Health Care Communication – Interdisciplinary approaches	Dr. Koppán, Ágnes supervisor
E-88	Interviewing strategies in the patient interview – language tools of assertive communication and empathy	Dr. Lepenye, Katalin supervisor
E-89	Functional-pragmatic analysis of encounters of health providers and patients	Dr. Köhalmi, Anikó supervisor Dr. Kránicz, Rita co-supervisor
E-90	The emergency and palliative care aspects of multimorbid or cancer patients	Dr. Pozsgai, Éva supervisor
E-91	Impact of changes in the organisational structure of the Hungarian health care system on health institutions	Dr. Balogh, Sándor co-supervisor Dr. Hegedűs, Mihály társtémavezető

E-92	Possibilities to improve nursing practice with respect to the international practice	Dr. Oláh, András supervisor Dr. Zrínyi, Miklós co-supervisor
E-93	Mental illness and language use: diagnostic and therapeutic options	Dr. Kőhalmi, Anikó supervisor Dr. Herold, Róbert co-supervisor
E-94	Pharmaceutical communication strategies in pharmacist-patient interactions	Dr. Fittler, András supervisor Dr. Rébék-Nagy, Gábor co-supervisor
E-95	The examination of job satisfaction, work values, the attitude to healthy lifestyle and sense of coherence among midwives	Dr. Lampek, Kinga supervisor Dr. Sárváry, Andrea Gabriella co-supervisor
E-96	Complex analyses of medical documentation	Dr. Fogarasi, Katalin supervisor Dr. Patonai, Zoltán co-supervisor
E-97	Narrative investigation of disease awareness	Dr. Gyuró, Mónika supervisor
E-98	Use of virtual reality therapy in neurological patients	Dr. Vajda, Zsolt supervisor Dr. Tollár, József co-supervisor
E-99	Quality of life of disadvantaged groups in terms of health status	Dr. Erdei, Renáta supervisor
E-100	Forms of palliative care and opportunities for improvement	Dr. Csikós, Ágnes témavezető
E-101	End-of-life wishes and decisions	Dr. Csikós, Ágnes supervisor
E-102	The effect of nurses' awareness of infection control measures on patient and family education	Dr. Kocsis, Béla supervisor
E-103	Examining the role of APRN in Hungarian and international context	Dr. Oláh, András supervisor, Dr. Máté, Orsolya co-supervisor
E-104	The significance and communication of prevention and public health programs	Dr. Máté, Orsolya supervisor
E-105	Assertivity, violation management and multiculturalism among the medical communication	Dr. Máté, Orsolya supervisor
E-106	Implementation of innovative technologies in health care	Dr. Papp, Renáta supervisor

E-107	Career image and changes in nurses, impact of organisational culture on work stress and career leaving, intervention points and opportunities to maintain health status	Dr. Siket, Adrienn supervisor
E-108	Impact of SARS-COV-2 pandemic of GP care	Dr. Balogh, Sándor supervisor
E-109	Examination of nurse's mental health and strain with regard to different hospital care units	Dr. Turcsán, Judit supervisor Dr. Raposa, László Bence co-supervisor
E-111	Examining generational characteristics in the field of health and sports sciences	Dr. Hideg, Gabriella supervisor
E-112	Survey of health behaviour and lifestyle habits of international students in colleague education	Dr. Raposa, László Bence supervisor Dr. Zrínyi, Miklós co- supervisor
E-113	Investigation of the effectiveness of animal therapy in health care	Dr. Tollár, József supervisor, Dr. Kovács, Árpád co- supervisor
E-114	Application of virtual reality, robotics and modern technological research / therapies in medicine	Dr. Tollár, József supervisor
E-115	Learning strategies and teaching methods of foreign languages for healthcare purposes	Dr. Hild, Gabriella supervisor
E-116	Valuation bases of motivation for health profession (nurse, dietician, physiotherapist, midwife, paramedic officer, health organizer-health tourism, recreation) among young people choosing profession	Dr. Turcsán, Judit supervisor
Programme Nr. 2 / PR-2	CARDIOVASCULAR HEALTH SCIENCE	Dr. Verzár, Zsófia programme leader
K-1	Preventive methods for cardio-, and cerebrovascular diseases	Dr. Cziráki, Attila supervisor, Dr. Verzár, Zsófia co- supervisor
K-2	The role of the clinical laboratory in the primary and secondary prevention of cardiovascular diseases	Dr. Kovács, L. Gábor supervisor
K-3	Effects of meteorological factors on cardio-, and cerebrovascular diseases	Dr. Verzár, Zsófia supervisor, Dr. Pakai, Annamária co-supervisor
K-5	Endothel function and cardiovascular disease	Dr. Sulyok, Endre supervisor
K-6	The effect of stress on health conditions (with a focus on work-related stress)	Dr. Vattay, Péter supervisor

K-8	Challenge of the 21st century: the human papillomavirus	Dr. Bódis, József supervisor
K-9	Effect of climate factors on seasonal diseases	Dr. Verzár, Zsófia supervisor
K-11	Preventive methods in tumour diseases	Dr. Kásler, Miklós supervisor
K-12	Prevention methods for vascular and cardiovascular diseases	Dr. Arató, Endre supervisor
K-13	Individual and community factors of health status and health inequalities	Dr. Füzési, Zsuzsanna supervisor
K-14	The importance of the effects of co-morbidities in acute patient care	Dr. Oláh, Tibor supervisor, Dr. Betlehem, József co- supervisor
K-15	Analysis of publicly and privately financed health care services	Dr. Sebestyén, Andor supervisor
K-16	Genetical, gene expressional background connection with lifestyle and occupational factors in cardiovascular diseases	Dr. Verzár, Zsófia supervisor
K-17	The role of arterial stiffness in cardiovascular prevention and risk evaluation	Dr. Arató, Endre supervisor
K-18	Monitoring of cardiovascular effects of legal and illegal drugs focusing on designer drugs	Dr. Verzár, Zsófia supervisor, Dr. Pakai, Annamária co-supervisor
K-19	Quality of life measurement and its implication in developing modern therapeutic strategies in non ST elevation myocardial infarction	Dr. Verzár, Zsófia supervisor, Dr. Alotti, Nasri co- supervisor
K-20	Care and primary and secondary prevention of cardio-cerebrovascular diseases	Dr. Balogh, Sándor supervisor, Dr. Sipeky, Csilla co- supervisor
K-21	The role of endovascular interventions in the improvement of the quality of life in patientst with vascular disease	Dr. Vajda, Zsolt supervisor, Dr. Nagy, Ferenc co- supervisor
K-22	Improving quality of life in patients with neurovascular and peripheral vascular diseases	Dr. Vajda, Zsolt supervisor, Dr. Nagy, Ferenc co- supervisor
Progra mme Nr. 3 / PR-3	TREATMENT OF LOCOMOTIVE DISORDERS	Prof. Dr. Kránicz, János programme leader
M-1	Prevention, possibilities of care and effects on quality of life of congenital deformity of lower limbs	Dr. Kránicz, János supervisor Dr. Pusztafalvi,

		Henriette co-supervisor
M-2	Connection between obesity and the clinical picture of locomotive disorders, and their possible treatments	Dr. Kráncz, János supervisor Dr. Hock, Márta co-supervisor
M-3	Methods in the clinical laboratories to study bone metabolism	Dr. Kovács, L. Gábor supervisor
M-4	Biomechanical, biochemical, epidemiological and pathophysiological aspects of prevention of infantile and adult spine diseases	Dr. Kráncz, János supervisor
M-5	Possible primary, secondary and tertiary prevention of osteoporosis in healthy people and in diseases of organs responsible for bone metabolism	Dr. Kráncz, János supervisor
M-6	Examination of muscle- and trunk balance and body composition in the age group of 10-25-year-olds, and the primary prevention of osteoporosis	Dr. Kráncz, János supervisor
M-7	Analysis of the shoulder's kinesiology, biomechanics and pathology with ZEBRIS CMS-HS ultrasound-based spatial motion monitoring	Dr. Kráncz, János supervisor
M-8	Examination of factors affecting the efficiency of radiosynoviorthesis	Dr. Szentesi, Margit supervisor
M-10	Connection between the biological risk, the local activity of joints, and the efficiency of radiosynoviorthesis	Dr. Szentesi, Margit supervisor, Dr. Zámbó, Katalin co-supervisor
M-11	Efficiency of radiosynoviorthesis in case of chronic synovitis of rheumatoid arthritis	Dr. Szentesi, Margit supervisor
M-12	Follow up study of gene expression in rheumatological diseases	Dr. Langmár, Zoltán supervisor
M-13	Role of the ultrasound examination in the diagnosis prior to radiosynoviorthesis and in evaluating the efficacy of treatment	Dr. Szentesi, Margit supervisor
M-14	The role of biological therapy in treatment of inflammatory rheumatologic disease	Dr. Szentesi, Margit supervisor
M-15	Biological therapy as a revolutionary new way to improve clinical symptoms and quality of life of children with JIA	Dr. Szentesi, Margit supervisor
M-16	Epidemiology of hip fractures	Dr. Sebestyén, Andor supervisor
M-17	Relationship between functional asymmetry and injuries among sportsmen	Dr. Wilhelm, Márta supervisor, Dr. Váczi, Márk co-supervisor

M-18	Aspects of thyroid disease in health sciences, with a focus on pathological mutation, prevention and treatment of organs of locomotion	Dr. Gáti, István supervisor
M-19	Aspects of prostate tumours in health sciences, with a focus on multimuscular changes, their prevention and treatment	Dr. Gáti, István supervisor
M-20	Evaluation of weight shifting abilities in patients with stroke	Dr. Kráncz, János supervisor
M-21	Prevention and rehabilitation of knee injuries by motion exercises in junior basketball players	Dr. Polgár, Tibor supervisor
M-22	The use of the climbing wall by the children's rehabilitation	Dr. Kráncz, János supervisor, Dr. Járomi, Melinda co-supervisor
M-23	Impact of movement disorders on quality of life	Dr. Kovács, Norbert supervisor
M-24	Effects of modern technical devices and sedentary lifestyle on the neuromuscular system	Dr. Császár, Gabriella supervisor
Programme Nr. 4 / PR-4	PERINATAL HEALTH SCIENCE	Prof. Dr. Sulyok, Endre programme leader
P-1	Hyperglycaemia in neonatal and infantile age	Dr. Ertl, Tibor supervisor
P-2	Epidemiology of congenital anomalies	Dr. Sándor, János supervisor
P-3	Low birthweight: epidemiological, sociological, pathophysiological and clinical consideration	Dr. Sulyok, Endre supervisor
P-4	The importance of low birthweight in the development of adult diseases	Dr. Sulyok, Endre supervisor
P-5	Modern aspects of infants' feeding	Dr. Sulyok, Endre supervisor
P-6	Water and electrolyte metabolism in the neonate: renal and endocrine regulation	Dr. Sulyok, Endre supervisor
P-7	Primary and secondary prevention of perinatal hypoxic brain injury (epidemiology, neurohabilitation, early developmental programs)	Dr. Sulyok, Endre supervisor
P-8	The importance of smoking in perinatal, infant and childhood morbidities	Dr. Sulyok, Endre supervisor
P-9	Clinical significance of hormones derived from adipocyte and skeletal tissues	Dr. Sulyok, Endre supervisor
P-10	The importance of novel hormones, hormone-like substances in the perinatal adaptation	Dr. Sulyok, Endre supervisor
P-11	Correlations among vitamin D supply, circulating forms of parathormone and serum protein fractions in patients with renal failure	Dr. Toldy, Erzsébet supervisor,

		Dr. Kálmán, Bernadette co-supervisor
P-12	Risk of the mechanism behind accelerated arteriosclerosis in case of patients with uremic hemodialysis	Dr. Csiky, Botond supervisor
P-13	Understanding the complex physiological and psychological changes in children with cow milk protein allergy	Tóth, Gergely Péter supervisor
Programme Nr. 5 / PR-5	HUMAN REPRODUCTION	Prof. Dr. Bódis, József programme leader
R-1	The effects of maternal illnesses and pharmacological therapies on pregnancy outcome	Dr. Ács, Nándor supervisor
R-2	Suicides, and suicide attempts in Hungary	Dr. Döme, Péter supervisor
R-3	Short- and long-term consequences of obstetric and gynecological interventions on life-style, and the possibilities to influence these effects	Dr. Bódis, József supervisor, Dr. Koppán, Miklós co- supervisor
R-4	Cumulation, and familial-genetical background of gynecological-, breast-, and gastrointestinal tumors	Dr. Bódis, József supervisor
R-5	Survival and quality of life of patients with gynecological tumor after expanded and minimally invasive surgery	Dr. Bódis, József supervisor, Dr. Papp, Szilárd co- supervisor
R-6	Ovarian hyperstimulation	Dr. Bódis, József supervisor
R-7	Effects of gynecological surgery on life-style and quality of life. The effect of preoperative preparation and postoperative physiotherapy on stool- and urine continence, and on the quality of sexual life	Dr. Bódis, József supervisor, Dr. Hock, Márta co- supervisor
R-8	Phytoestrogens, hormon replacement, life-style and dietetic customs in peri- and postmenopause	Dr. Garai, János supervisor
R-9	Vitamin-, iron- and trace element supplementation and dietetics in prenatal care; and it's perinatal role significance	Dr. Koppán, Miklós supervisor
R-10	Intraovarian regulation - endocrine aspects of in vitro fertilization	Dr. Koppán, Miklós supervisor
R-11	Fertility studies in clinical laboratories	Dr. Kovács, L. Gábor supervisor
R-15	Crimes against medical interventions, practice of medical research and patient's self-determination from point of view of forensic science and criminal procedure law	Dr. Bódis, József supervisor, Dr. Herke, Csongor co- supervisor

R-16	The role of connective tissue system in the recognition of complementary-alternative medicine, naturopathy, and traditional chinese medicine; and in the integration of other scientific fields neighbouring health sciences	Dr. Gáti, István supervisor
R-17	The legal status of the embryo, in terms of stemcell research and human rights	Dr. Bódis, József supervisor, Dr. Zeller, Judit co- supervisor
R-18	Effects of endometriosis on quality of life	Dr. Koppán, Miklós supervisor, Dr. Koppán, Ágnes co- supervisor
R-19	Examination of etiological factors of fetal developmental anomalies	Dr. Ács, Nándor supervisor
R-20	Endocrine-metabolic treatment of women with polycystic ovarium syndrome unrelated to infertility	Dr. Bódis, József supervisor, Dr. Bajnok, László co- supervisor
R-21	Reproductive health behaviour of the Hungarian roma minority	Dr. Horváth, Boldizsár supervisor
R-22	Complementer analysis of corps identification processes	Dr. Bódis, József supervisor, Dr. Herke, Csongor co- supervisor
R-23	Intrapartum analysis of the fetal electrocardiogram (fECG) with STAN® SR31 fetal monitor system in case of meconium tainted amniotic fluid	Dr. Bódis, József supervisor, Dr. Farkas, Bálint co- supervisor
R-24	The genetic components of the etiology of chronic diseases, congenital malformations and diseases in pregnancy	Dr. Joó, József Gábor supervisor, Dr. Kornya, László co- supervisor
R-25	Haemodynamic examinations in healthy and pathological pregnancy	Dr. Tamás, Péter supervisor
R-26	Demographic factors influence the occurrence of fetal malformations	Dr. Veszprémi, Béla supervisor
R-27	Pre and Postnatal Quality of Life and Fear of Childbirth	Dr. Várnagy, Ákos supervisor, Dr. Varga, Katalin co- supervisor
R-28	Biochemical and biological analysis of the peritoneal fluid in ovarian hyperstimulation syndrome (OHSS)	Dr. Farkas, Bálint supervisor
R-29	The investigation of the pelvic floor muscle training effectiveness for urinary and fecal continence and the quality of sexual life	Dr. Bódis, József supervisor, Dr. Surányi, Andrea co- supervisor
R-30	Child sexual abuse in Szabolcs-Szatmár-Bereg Country in Hungary	Dr. Csorba, Roland supervisor

R-31	Prevalence and treatment options for muscle, bone and joint problems during pregnancy or delivery and after birth	Dr. Hock, Márta supervisor
R-32	Vaginal birth after cesarean section	Dr. Veszprémi, Béla supervisor
R-33	Quality of life of pregnant women in terms of health status and health behavior	Dr. Erdei, Renáta supervisor
R-34	Investigating the non-surgical and the surgical treatment of pelvic organ prolapse and female urinary incontinence	Dr. Farkas, Bálint témavezető Dr. Németh, Zoltán társtémavezető
R-35	Morphological analysis of cellular elements involved in reproduction in pathological conditions	Dr. Kovács, Kálmán témavezető Dr. Nagy, Bernadett társtémavezető
Programe Nr. 6 / PR-6	ONCOLOGY - HEALTH SCIENCES	Prof. Dr. Kiss, István programme leader
PR-6/1	PREVENTIVE ONCOLOGY Subprogramme	Prof. Dr. Kiss, István subprogramme leader
O-3	Efficiency of the most modern methods in radiation therapy in the patients of University of Pécs, Medical School	Dr. Mangel, László supervisor, Dr. Boronkai, Árpád co-supervisor
O-4	Historical demography of Hungary	Dr. Kiss, István supervisor, Dr. Varga, Csaba co- supervisor
O-5	Environmental carcinogenesis	Dr. Kiss, István supervisor
O-6	Nutrition and cancer	Dr. Kiss, István supervisor
O-7	Molecular epidemiology of cancer	Dr. Kiss, István supervisor, Dr. Jung, János co- supervisor
O-8	Public health problems and programs with respects to health insurance and health economy	Dr. Boncz, Imre supervisor
O-11	Primary secondary and tertiary prevention in cancer	Dr. Kiss, István supervisor
O-12	Genetical and genomical epidemiology	Dr. Kiss, István supervisor
O-14	Chemoprevention of cancer	Dr. Kiss, István supervisor
O-17	Alternative ways in cancer prevention	Dr. Kiss, István supervisor

O-21	Analysis of factors improving the diagnosing, perioperative and oncologic treatment of patients with colon cancer	Dr. Oláh, Tibor supervisor, Dr. Boronkai, Árpád co-supervisor
O-22	Role of Micro RNAs in carcinogenesis and prevention	Dr. Kiss, István supervisor
O-23	Extended surgeries of head and neck cancers, and their surgical reconstructions	Dr. Kásler, Miklós supervisor
O-24	Radiochemotherapy of head and neck cancer	Dr. Kásler, Miklós supervisor
O-25	Laser surgery of head and neck cancer	Dr. Kásler, Miklós supervisor
O-26	Practice and opportunities of prevention in the General Practitioners' routine	Dr. Balogh, Sándor supervisor
O-27	Significance of public health	Dr. Molnár, Kornélia supervisor
O-30	Nutritional status and dietary habits of homeless people	Dr. Rákósy, Zsuzsa supervisor
O-31	Clinical application of resveratrol	Dr. Gyöngyi, Zoltán supervisor
O-32	Evolution of inhaled drug delivery	Dr. Elekes, Krisztián supervisor
O-33	Rehabilitation in Cancer Care	Dr. Szalai, Márta supervisor
O-34	Molecular epidemiological and epigenetical examination of artificial food colourants in animal experiment test system	Dr. Kiss, István supervisor, Dr. Figler, Mária co-supervisor
O-35	Expression and Function of Erythropoietin Receptor (EpoR) Variant Forms in Human Breast Cancer	Dr. Rákósy, Zsuzsa supervisor
O-36	Multidisciplinary teamwork in hospice-palliative care	Dr. Csikós, Ágnes supervisor
O-37	Diagnostic and treatment of malignant tumors	Dr. Kásler, Miklós supervisor
O-38	Assesment of Medical Waste Management Practice: A Case Study	Dr. Kiss, István supervisor, Dr. Tibold, Antal co-supervisor
O-39	Molecular epidemiological examination of food additives and plant-origin bioactive substances	Dr. Varjas, Tímea supervisor
O-40	Investigation of predictive biomarkers in tumors	Dr. Bellyei, Szabolcs supervisor

O-41	Diagnoses and treatment of solid abdominal malignancies	Dr. Káposztás, Zsolt supervisor
O-42	Microbiom composition and the pathogenesis of colorectal cancer patients	Dr. Raposa, László Bence supervisor Dr. Káposztás, Zsolt co-supervisor
O-43	Circulating soluble hemostatic marker alterations according to JAK2V61F mutation in MPN patients	Dr. Alizadeh, Hussain supervisor Dr. Turcsán, Judit co-supervisor
PR-6/2	DIAGNOSTIC MEDICAL IMAGING Subprogramme	Prof. Dr. Bogner, Péter subprogramme leader
O-2-1	New image processing and computing methods in diagnostic imaging	Dr. Bogner, Péter supervisor
O-2-2	Identification of molecular targets for prevention diagnostics of major non-communicable diseases	Dr. Gallyas, Ferenc jr. supervisor
O-2-3	Molecular diagnostics in the primary and secondary prevention of frequent non-communicable diseases	Dr. Kovács, L. Gábor supervisor
O-2-4	Diagnostic errors due to peculiarities of immune-analytical methods	Dr. Kovács, L. Gábor supervisor
O-2-5	Non-invasive examination of the cardiovascular system – CT, MR, angiography	Dr. Kovács, Árpád supervisor, Dr. Bajzik, Gábor co-supervisor
O-2-6	Development of CT and MR guided diagnostic and therapeutic interventional procedures	Dr. Repa, Imre supervisor
O-2-7	Application of modern image processing methods in diagnostic imaging and radiotherapy	Dr. Repa, Imre supervisor, Dr. Kovács, Árpád co-supervisor
O-2-8	Significance of molecular and multimodality imaging in the diagnosis, prognosis and follow up of therapy in lymphoma patients	Dr. Zámbo, Katalin supervisor, Dr. Alizadeh Hussain co-supervisor
O-2-9	Quantitative MR methods for characterizing cerebral pathologies	Dr. Bogner, Péter supervisor, Dr. Schwarcz, Attila co-supervisor
O-2-10	The integration of functional cross-sectional imaging in 3D conformal radiation therapy of brain tumors	Dr. Kovács, Árpád supervisor, Dr. Bogner, Péter co-supervisor
O-2-11	The use of diffusion, perfusion and other functional imaging information in therapy/follow-up of extracranial tumors	Dr. Bogner, Péter supervisor, Dr. Kovács, Árpád co-supervisor
O-2-12	Experimental and clinical applications of quantitative MR imaging techniques	Dr. Repa, Imre supervisor,

		Dr. Bajzik, Gábor co-supervisor
O-2-13	Modern imaging techniques, the role of CT/MR imaging in the detection of breast cancer	Dr. Repa, Imre supervisor, Dr. Bajzik, Gábor co-supervisor
O-2-14	Mass spectrometry analysis of endocrine metabolom system	Dr. Koppán, Miklós supervisor, Dr. Márk, László co-supervisor
O-2-15	Use of imaging methods based on mass spectrometry in health sciences	Dr. Márk, László supervisor
O-2-16	Mapping and monitoring of xneobiotics induced molecular changes by imaging technics	Dr. Pirger, Zsolt supervisor
O-2-17	Application of modern imaging methods in the field of reconstruction, aesthetic and plastic surgery	Dr. Bajzik, Gábor supervisor, Dr. Ferenczy, József co-supervisor
O-2-19	Improvement of the quality of life in epileptic and stroke patients using postprocessing methods in neuroradiology	Dr. Vajda, Zsolt supervisor, Dr. Nagy, Ferenc co-supervisor
O-2-20	Application of multimodality imaging diagnostic systems in clinical practice	Dr. Kovács, Árpád supervisor, Dr. Repa, Imre co-supervisor
O-2-21	The role of 3D imaging in oncology pathways	Dr. Kovács, Árpád supervisor, Dr. Repa, Imre co-supervisor
O-2-22	PET/CT and PET/MR based treatment modalities in the modern oncology	Dr. Kovács, Árpád supervisor Dr. Cselik, Zsolt co-supervisor
O-2-23	The importance of hybride imaging in receptor scintigraphies	Dr. Zámbó, Katalin supervisor, Dr. Perlaki, Gábor co-supervisor
O-2-24	High-dose radiotherapy procedures requiring precision, multimodal imaging	Dr. Kovács, Árpád supervisor, Dr. Lakosi, Ferenc co-supervisor
O-2-25	Investigation of mechanical changes in the brain by transcranial doppler (TDC) and radiological imaging	Dr. Vajda, Zsolt supervisor, Dr. Tollár, József co-supervisor
O-2-26	Defects, examinations and effects of the posterior circulatory system of the brain on the body and motor and non-motor functions	Dr. Vajda, Zsolt supervisor, Dr. Tollár, József co-supervisor

O-2-27	Detection of central and peripheral defects, pain in patients undergoing oral and maxillofacial surgery and head and neck surgery	Dr. Vajda, Zsolt supervisor, Dr. Tollár, József co-supervisor
O-2-28	The use of diffusion, perfusion and functional imaging in extracranial or intracranial regions	Dr. Kovács, Árpád supervisor, Dr Nagy, Szilvia Anett co-supervisor
PR-6/3	GASTROENTEROLOGICAL DISEASES Subprogramme	Prof. Dr. Döbrönte, Zoltán subprogramme leader
O-3-1	Gastroenterological endoscopic diagnostic and therapeutic procedures	Dr. Döbrönte, Zoltán supervisor
O-3-3	The role of the clinical laboratory in the primary and secondary prevention of diabetes mellitus	Dr. Kovács, L. Gábor supervisor, Dr. Fodor, Lajos co-supervisor
O-3-13	Significance of monitoring during endoscopy with special regard to the sedoanalgesic premedication	Dr. Döbrönte, Zoltán supervisor
O-3-14	Risk factors for endoscopic retrograde cholangiopancreatography (ERCP) related acute pancreatitis and effectiveness of the pharmacological prophylaxis	Dr. Döbrönte, Zoltán supervisor
O-3-15	The role of the microbiome in the development and maintenance of chronic diseases	Dr. Rajnics, Péter supervisor
Programme Nr. 7 / PR-7	SPORT and HEALTH SCIENCES	Dr. Rétsági, Erzsébet programme leader Dr. Ács, Pongrác co-programme leader
S-3	Relations between biological status of fundamental motor skills and functional characteristics. Determination of the energy consumption rate of various training protocols using ergometers	Dr. Sárszegi, Zsolt supervisor
S-4	The preventive, therapeutic and rehabilitative role of the regular workout	Dr. Járomi, Melinda supervisor Dr. Makai, Alexandra co-supervisor
S-5	Development of non invasive methods to measure cardiovascular function	Dr. Karsai, István supervisor, Dr. Prémusz, Viktória co-supervisor
S-6	Methodology and diagnostic approaches of measuring human performance	Dr. Karsai, István supervisor
S-7	Prevention of demonstrable lifestyle disorders, the healing role of physical fitness in chronic diseases. Fitness and exercise programs for rehabilitation	Dr. Oláh, András supervisor, Dr. Ács, Pongrác co-supervisor

S-8	The Optimum Arousal Theroy - to be in the ZONE - the State and the Possibility of Measuring within Elite and Recreational Sports	Dr. Balogh, László supervisor
S-9	Challenges of Public Education in Student Health Promotion – with Special Regards to Physical Activity	Dr. Rétsági, Erzsébet supervisor, Dr. Győri, Ferenc co-supervisor
S-10	Philosophical, Content and Methodological Basis of Educating to Recreation in the Physical Education	Dr. Rétsági, Erzsébet supervisor
S-11	The role and possibilities of movement games in the establishment of physically active lifestyle	Dr. Kovács, Katalin supervisor
S-12	Spatial specialities of the Hungarian health tourism	Dr. Laczkó, Tamás supervisor
S-13	Demand and supply relations of the sport tourism in Hungary	Dr. Laczkó, Tamás supervisor
S-14	Relation system of sports and quality of life	Dr. Ács, Pongrác supervisor, Dr. Betlehem, József co-supervisor
S-15	Free time physical activity, lifestyle and health	Dr. Tari Keresztes, Noémi supervisor
S-16	Free time physical activity and social attitudes	Dr. Tari Keresztes, Noémi supervisor
S-17	Micro-and macro-economic effects of physical activity	Dr. Ács, Pongrác supervisor, Dr. Rappai, Gábor co-supervisor
S-18	The sports' economic and social relation system	Dr. Ács, Pongrác supervisor
S-19	Sport management in the XXIth century	Dr. Elbert, Gábor supervisor
S-20	The martial arts as a complex educational systems	Dr. Kovács, Antal supervisor
S-21	Health tourism researches: the examination of the success factors of health tourism enterprises and the quality of the health tourism services, service management	Dr. Müller, Anetta supervisor
S-22	Trends of fitness-wellness, the examination of demand and supply elements on the field of free time economy at small and medium-size enterprises	Dr. Müller, Anetta supervisor
S-23	Performance analyses of tennis players in schools (Dartfish software)	Dr. Polgár, Tibor supervisor

S-24	The influence of organizational psychology and cultural factors to the achievement of sports teams and sport organizations in the globalization sport	Dr. Balogh, László supervisor
S-25	The body image disorders among young and middle-aged men and women	Dr. Ihász, Ferenc supervisor
S-26	Regulation of the cardiorespiratory system under increased physical and psychological stress	Dr. Oláh, András supervisor, Dr. Tóth, Miklós co- supervisor
S-27	The analysis of predisposing factors of the obstructive sleep apnea syndrome (OSAS). Analysis of relationships of the disease and cardiovascular disease.	Dr. Ihász, Ferenc supervisor, Dr. Balogh, László co- supervisor
S-28	The effect of combat sports and martial arts on personality in public education and sport	Dr. Rétsági, Erzsébet supervisor, Dr. Morvay-Sey Kata co-supervisor
S-29	Impact of planned and regular physical activity on metabolic changes in elderly	Dr. Ihász, Ferenc supervisor, Dr. Ács, Pongrác co- supervisor
S-30	Social and economic impacts of international sport events organised in Hungary	Dr. Stocker, Miklós supervisor
S-31	Cardiorespiratory data analysis of elite male 15-18-year-old basketball players during training and competition	Dr. Ihász, Ferenc supervisor
S-32	Mindfulness in athletic performance	Dr. Ács, Pongrác supervisor, Dr. Perczel-Forintos, Dóra co-supervisor
S-33	The role of respiratory control in improving the performance of athletes and the quality of life of chronic patients	Dr. Kovács, Antal supervisor, Dr. Varga, János Tamás co-supervisor
S-34	Psychophysiological study of technical and team sports	Dr. Ihász, Ferenc supervisor
S-35	The system of social and economic relations of e-sport	Dr. Borbély, Attila supervisor Dr. Ács, Pongrác co- supervisor
S-36	Non-invasive comparative study of peripheral, central blood pressure, pulse pressure, arterial stiffness, stroke volume parameters in young athletes	Dr. Cziráki, Attila supervisor Dr. Rátgéber, László co- supervisor
S-37	The effect of long-term endurance training on the development of physiological cardiac hypertrophy and the mechanisms of cardiac pump function and growth processes	Dr. Cziráki, Attila supervisor Dr. Rátgéber, László co- supervisor

S-38	The role of team sports in the development of a physically active lifestyle	Dr. Filó, Csilla supervisor
S-39	To learn about the sports consumption habits of young adult e-athletes and to assess their role in the sports economy	Dr. Paár, Dávid supervisor
S-41	Technical and specific movement analysis and non-invasive rehabilitation of water athletes	Dr. Tollár, József supervisor Dr. Kovács, Árpád co-supervisor
S-42	Investigation of biomechanical and cognitive changes under varying intensity load	Dr. Tollár, József supervisor Dr. Kovács, Árpád co-supervisor
8. program / PR-8	FOOD SCIENCES, NUTRITION, DIETETICS and HYDRATION	Prof. Dr. Figler Mária programme leader
T-1	Examination of ingestion-controlling neuropeptides in diabetes mellitus and in their animal models	Dr. Figler, Mária supervisor
T-2	Nutritional and clinical dietary studies of various carbohydrates in diabetic patients	Dr. Kovács, L. Gábor supervisor, Dr. Figler, Mária co-supervisor
T-3	Clinical dietetics and nutrition science. Cost analysis of eating habits and food consumption.	Dr. Figler, Mária supervisor
T-4	Effect of various forms of calcium-intake in osteoporosis treatment.	Dr. Figler, Mária supervisor
T-5	Effect of fructose consumption on certain metabolic parameters in patients with obesity and diabetes	Dr. Figler, Mária supervisor
T-6	Examination of analytical and dietotherapeutic effects of oilseeds.	Dr. Figler, Mária supervisor
T-7	Chemical and microbiological examination of food.	Dr. Figler, Mária supervisor Dr. Kerényi, Mónika co-supervisor
T-8	Analysis and dietetic examination of biologically active components in grapes.	Dr. Figler, Mária supervisor
T-9	Clinical application of probiotics (bacteria types, doses, domains of application).	Dr. Figler, Mária supervisor
T-10	Possibilities of influencing nutritional status of seriously ill patients in clinical practice.	Dr. Figler, Mária supervisor, Dr. Óváry, Csaba co-supervisor
T-11	Effects of various types of treatment on lipid homeostasis and fatty acid composition of plasma lipids in patients with Type-II Diabetes	Dr. Figler, Mária supervisor Dr. Decsi, Tamás co-supervisor
T-12	Possibilities of the realisation of energy balance in different sports	Dr. Figler, Mária supervisor

T-13	Habits of liquid consumption in different sports	Dr. Figler, Mária supervisor
T-14	Screening for type-2 diabetes and metabolic syndrome with risk stratification in the Roma population, identification of the effects lifestyle and dietary interventions on the development of diabetes	Dr. Fülöp, Norbert supervisor, Szekeresné Dr. Szabó, Szilvia co- supervisor
T-15	Diet in the management of multiple sclerosis.	Dr. Gáti, István supervisor
T-16	The influence of nutritional compounds in drinking form with enhanced concentration of arginin and zinc in cases of decubitus wound healing: measuring of the nutritional therapy efficiency	Dr. Kisbenedek, Andrea supervisor
T-17	Application of evidence based medicine methodology to the field of nutrition	Dr. Lohner, Szimonetta supervisor
T-18	Validation of nutrition screening tools	Dr. Polyák, Éva supervisor, Dr. Pusztafalvi, Henriette co-supervisor
T-19	Quality of life study in nutrition related diseases	Dr. Polyák, Éva supervisor, Dr. Pusztafalvi, Henriette co-supervisor
T-20	Nutritional role of fatty acid intake and its instrumental analysis	Dr. Márk, László supervisor Dr. Szabó, Éva co- supervisor
T-21	Impact of climate change and overpopulation on alteration of raw food, nutrient content and eating habits	Dr. Turcsán, Judit supervisor
T-22	Olfactory classification of food products	Dr. Gyöngyi, Zoltán supervisor
T-23	Analysis of plant secondary metabolites	Dr. Kisbenedek, Andrea supervisor Dr. Stromájer- Rácz, Tímea co- supervisor
T-24	The effects of nutrition on gut microbiome	Dr. Polyák, Éva supervisor

III. Credit Allocation

Semesters	Educational credits (subjects)	Research credits	Scientific activity	Dissertation credits	Sum
Training and research section					
1.	4	25	2		31
2.	4	25	2		31
3.	4	25	2		31
4.	4	25	2		31
Complex exam (theoretical part – 2 subject related the research programme)			Complex exam (dissertational part – progression of the research programme)		
Research and dissertational section					
5.		25	2	2	29
6.		25	2	2	29
7.		25	2	2	29
8.		25	2	2	29
Absolutory					240

IV. Study Plan

	Course Code	Name of Course	Lecturer	Hours		Credit
				Theory	Practice	
1. Semester						
Mandatory	FDIP1BOJ1	Fundamentals of research in health sciences	Prof. Dr. Bódis József	14	0	1
	FFDIP4BOI2	Fundamentals of finances in health care	Prof. Dr. Boncz Imre	28	0	2
	FDIP5JUK1	Epidemiology I.	Dr. Juhász Krisztina	14	0	1
	FDIP5JES1	Statistical methods in research I.	Dr. Raposa L. Bence	14	14	2
Optional	FDIP5SEM1	Scientific English: writing publications	Sélleyné Dr. Gyuró Mónika	14	0	1
	FDIP9LOS1	First steps of conducting a systematic review	Dr. Lohner Szimonetta	14	0	1
2. Semester						
Mandatory	FDIP5JES2	Statistical methods in research II.	Dr. Raposa L. Bence	14	14	2
	FDIP4BOI2	Methodological questions of economic analyses in health care	Prof. Dr. Boncz Imre	28	0	2
	FDIP5SAJ1	Epidemiology II.	Dr. Juhász Krisztina	14	0	1
Optional	FDIP8SGYM101	Academic Public Speaking	Sélleyné Dr. Gyuró Mónika	14	0	1
	FNDIP9LOS2	Systematic reviews: collecting and combining data	Dr. Lohner Szimonetta	14	0	1
	FDIPCLN01	Creatine for lifecycle nutrition: not just for athletes and muscle.	Prof. Sergej M. Ostojic	14	0	1
3. Semester						
Mandatory	FDIPLP1	Licensing process for biomedical / human research	Dr. Prémusz Viktória	14	0	1
Optional	FDIP6GYZ1	Genetically modified organisms	Dr. Gyöngyi Zoltán	14	0	1
	FDIPCP1	Current possibilities and challenges of first aid education and socialization	Dr. Bánfai Bálint	14	0	1
	FDIPIIS1	Insights into scientometrics	Dr. Prémusz Viktória	14	0	1
	FDIP5AGI1	Law in health care and its frontiers	Dr. Ágoston István	14	0	1
4. Semester						
Optional	FDIPWH1	Women's health	Dr. Hock Márta	14	0	1
	FDIPPPA1	Power Point - a key secret for thesis defense	Dr. Szentpéteri József	14	0	1
-	FDIP9KZS	Surgical oncology - multidisciplinary approach (importance of diagnostics, treatment, feeding and rehabilitation)	Dr. Káposztás Zsolt	14	0	1

	FNDIP9NTM01	Relationship between physical activity and large population diseases: Exercise - Medicine concept	Prof. Dr. Tóth Miklós	14	0	1
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V. Recognition of Prior and Extracurricular Scientific Achievements

1. Impact Factor (min. 2 IF) international scientific publications over 2 IFs: a. (How many times the extra impact factor is the minimum impact factor, 2 credits)	8/	credits
2. Oral and poster presentations, abstracts (Except co-authorship!) international: 0.8 credits per presentation a. domestic: 0.4 credits per presentation	4/	credits
3. Study abroad (except course) 0.1 credit / month	2/	credits
4. Participation in courses (Except PhD courses) international vs. domestic theoretical or practical courses a. max. 2 credits per course	4/	credits
5. MD specialization or Second MSc fit into the discipline of the PhD program concerned	1,5/	credits
6. Teaching activity (in higher education) fit into the discipline of the PhD program concerned	1,5/	credits
7. Research group fit into the discipline of the PhD program concerned, participation in a scientific research working group awarded through a call for proposals 0.8 credits per workgroup	4/	credits
8. Participation in PhD courses min. 4 credits		credits
Sum:		credits

VI. Complex Exam – General Information

Doctoral (Ph.D.) complex exam information 2020 / 2021. spring semester

The Doctoral School of Health Sciences of the Faculty of Health Sciences, University of Pécs organizes a complex exam for those PhD students, who enrolled in our new four-year doctoral programme, in accordance with the current rules and regulations of the Doctoral Training Program (see Appendix). Accordingly, all PhD students will need to demonstrate their study progress and actual knowledge through the assessment process at the end of the second year.

Introduction to the complex exam rules of the Doctoral School of Health Sciences

As stated in section 16 of the Code of Rules and Regulations of the Doctoral School of Health Sciences, Faculty of Health Sciences, University of Pécs, students who began their studies from the 2016/2017 academic year and thereafter, the fourth semester will only be accepted if they have passed a complex exam in order to fully complete the study and research phase of the training program. The complex exam is to assess and evaluate student progress both in the field of study and research activity. Successful completion of the complex exam is a criterion for the continuation of the PhD programme in the following two years.

Structure of the complex exam

The complex PhD exam is an open oral exam acknowledged by the Complex Examination Board, which was officially invited and entrusted by the Doctoral and Habilitation Board of the University (DHBU). The complex exam is composed of two sections: one aims to assess the examinee's theoretical knowledge ('theoretical section'), while the other section offers the opportunity to demonstrate student achievements in the field of research ('dissertation section').

THEORETICAL SECTION

The theoretical section of the complex exam involves at least two subjects/topics for assessing the examinee's competency and provides basis for the exam questions.

Every PhD student must take an exam in the subject of RESEARCH METHODOLOGY AND EPIDEMIOLOGY and in another subject relevant to their own field of research, as follows:

	Programme	Programme leader
	GENERAL SUBJECT	PROGRAMME SPECIFIC SUBJECT
PR-1	Frontiers of Health Sciences	Prof. Dr. Kovács, L. Gábor programme leader
	Epidemiology and Research methodology	Health Economy/ Health Sociology
PR-2	Cardiovascular Health Science	Dr. Verzár, Zsófia programme leader
	Epidemiology and Research methodology	Cardiovascular Disorders
PR-3	Treatment of Locomotive Disorders	Prof. Dr. Kráncz, János programme leader
	Epidemiology and Research methodology	Fundamentals of Physiotherapy
PR-4	Perinatal Health Science	Prof. Dr. Sulyok, Endre programme leader

	Epidemiology and Research methodology	Perinatal Adaptation
PR-5	Human Reproduction	Prof. Dr. Bódis, József programme leader
	Epidemiology and Research methodology	Reproductive Endocrinology
PR-6	Oncology - Health Sciences	Prof. Dr. Kiss, István programme leader
	Epidemiology and Research methodology	Clinical Oncology
PR-7	Sport and Health Sciences	Dr. Rétsági Erzsébet programme leader Dr. Ács Pongrác co-programme leader
	Epidemiology and Research methodology	Sport and Health Sciences
PR-8	Food Science, Nutrition, Dietetics and Hydration	Prof. Dr. Figler, Mária programme leader
	Epidemiology and Research methodology	Dietetics

If requested by the PhD student beforehand, the DHBU may grant individual **exemption** from one of the theoretical subjects of the complex exam to those PhD students who

- a) have passed a successful PhD final exam in the given subject, or an exam which is equally recognized
- b) have participated in undergraduate training teaching the given subject for a minimum of four semesters,
- c) have written a book/course book on the given subject.

Please scan the signed request document, and send it electronically to the following email address: doktoriiskola@etk.pte.hu

DISSERTATION SECTION

The second section of the complex exam involves an **oral presentation**, where the examinee will be asked to demonstrate their comprehensive knowledge of scientific literature, to give a report on their achievements in the field of research, and to introduce their research plans for the second phase of the PhD program. The examinee will also present the developed plans for the PhD thesis and the scheduled steps of publishing the dissertation. In support of the evaluation of the dissertation section, on registering for the exam date, the examinee must submit a **study**, signed and acknowledged by the mentor, based on the following recommended structure: **Introduction, Materials and Methods, Results**. The date of the complex exam must be officially announced at least three weeks prior to the exam date.

Deadline for submitting exemption and registering for the examination with the indication of the 2nd subject and the **submission of the written Complex Exam** (research plan/ report signed by the supervisor)

TBA

Dates of Complex Exam

TBA

Expected time of retake examination

TBA

Complex Examination Board

The Complex Examination Board consists of a chairman and two members, who are appointed by the Doctoral Habilitation Board of the University with the recommendation of the Doctoral School. The chair of the board is a professionally competent professor. One of the members cannot be employed by the University of Pécs. Any person who cannot provide an unbiased evaluation of the examination, including the supervision of the PhD student, may not become a member of the board. The PhD student must be informed about the structure of the Complex Examination Board. The PhD student may raise written objections against the structure of the Complex Examination Board to the Doctoral and Habilitation Board of the University within eight days in the case of bias or conflicts of interest exclusively. Regarding all questions on the operation of the Complex Examination Board, decisions should be made in a closed session, by open and by majority vote, where the chairman votes last. Only “yes” and “no” votes are accepted. The complex exam can only be effected if all three members of the committee are present.

Evaluation of the complex exam

The Examination Board evaluates the theoretical and written parts of the exam separately. A report containing a textual evaluation of the complex examination is prepared. A complex exam is successful if the majority of the committee members consider both exams to be successful. In the case of a failed theoretical exam, the candidate may repeat the exam once during the same examination period.

The complex examination performance is assessed by members of the committee on a scale of 1 to 5, per part and per individual. The exam is successful if the candidate’s score reaches 60% of the points. The qualification of the complex exam is pass or fail respectively. The result must be announced directly after the complex exam. The result of the complex exam is recorded in the committee’s report, and the certificate for the complex exam is issued.

Please find the detailed information about the exam attached.

I wish you a pleasant preparation and a successful exam.

Sincerely,

Doctoral School

VII. Complex Exam – Subjects and Topics

Subjects and topics for the doctoral (PhD) complex exam

A

EPIDEMIOLOGY AND RESEARCH METHODOLOGY

1. The concept, subject and history of epidemiology
2. Measuring morbidity, incidence
3. Measuring morbidity – prevalence
4. Risk indicators - relative risk
5. Risk indicators - odds ratio
6. Mortality indicators (mortality rate, cause-specific mortality rate, age-specific mortality rate, neonatal and infant mortality, maternal mortality) and main characteristics
7. Direct and indirect standardization
8. Life expectancy, DALY
9. Early detection of diseases - the role and basic features of screening
10. Descriptive epidemiological studies - descriptive and ecological studies
11. Descriptive epidemiological studies - cross-sectional studies
12. Descriptive epidemiological studies - case reports, case series
13. Analytical epidemiology studies - case-control study
14. Analytical epidemiology studies - cohort study
15. Intervention studies - randomized controlled trial
16. Population intervention studies
17. Basic concepts of sampling (population, target population, inclusion and exclusion criteria, sample, the concept and types of non-probability sampling)
18. Basic concepts of sampling (representativeness, concept and types of random sampling, criteria determining the number of elements in sample)
19. Confounding factors and their control in epidemiological studies
20. Errors in epidemiological studies (random errors and distortions)

Required reading

[Cseh Károly](#), [Ember István](#), [Kiss István](#): *Népegészségügyi orvostan* PTE-ÁOK, 2013

E book, chapter on epidemiology, recommended for almost all of the topics

Kutatásmódszertani alapsimeretek szerk: Boncz Imre Pécs, 2015

http://www.etk.pte.hu/protected/OktatasiAnyagok/%21Palyazati/sport/Kutatasmodszertan_e.pdf

Recommended chapters: Chapter 1, 2

Bonita, Beaglehole, Kjellström: *Basic epidemiology* WHO, 2006

http://apps.who.int/iris/bitstream/10665/43541/1/9241547073_eng.pdf

Selected Bibliography

Ádány Róza: *Megelőző orvostan és népegészségtan Medicina Könyvkiadó*, 2006

Some of the topics are covered

Ranjit Kumar : *Research methodology A step by step* London, 2011

http://www.sociology.kpi.ua/wp-content/uploads/2014/06/Ranjit_Kumar-Research_Methodology_A_Step-by-Step_G.pdf

Polit and Beck: *Nursing research principle and methods*

[https://web2.aabu.edu.jo/tool/course_file/lec_notes/1001391_Nursing%20research-Principles%20and%20methods%20\(7e_2003\).pdf](https://web2.aabu.edu.jo/tool/course_file/lec_notes/1001391_Nursing%20research-Principles%20and%20methods%20(7e_2003).pdf)

(collecting self report data (questionnaire), sampling method, observation)

Supplementary reading

<https://drive.google.com/open?id=18weOiOpU5OuQldU8HBRmaOHp3Wra1oM3>

B

I. A) HEALTH ECONOMICS

1. Structure of Health Systems (Bismarck, Beveridge, Semashko, Self-Care)
2. Financing Techniques in International Practice (Global Budget, Head Quota, Itemized Settlement, Daily Subscription, Case Composition)
3. Financing in general practitioners' service in Hungary
4. Financing in home care service in Hungary
5. Financing in health visiting service (visiting midwife after birth) in Hungary
6. Financing in specialized outpatient care in Hungary
7. Financing in active inpatient care in Hungary
8. Financing in chronic inpatient care in Hungary
9. Regulations of health capacities
10. Types of Health Economics Analysis (Cost-minimization, Cost-Effectiveness, Cost-Benefit)
11. Measuring quality of life
12. Evidence-based medicine: a hierarchical structure of scientific results and opinions
13. The basics of quality assurance in healthcare
14. Structure, organizational system and tasks of National Health Insurance Fund of Hungary (Hungarian acronym: NEAK)
15. Structure, organizational system and tasks of the National Healthcare Services Center
16. The structure, organization and tasks of the National Public Health and Medical Office Service

I. B) HEALTH SOCIOLOGY

1. Formation and subject of medical and health sociology, the main social processes of their development.
2. Changes in the definition of health.
3. Aaron Antonovsky's theory of salutogenesis.
4. The health sociology aspects of Mihály Csíkszentmihályi's flow theory.
5. Main domestic and international surveys aimed at health measurement.
6. International and domestic databases for health measurement.
7. Changes in life expectancy and healthy life expectancy from the 20th century until nowadays.
8. The health of the Hungarian population based on mortality and morbidity rates.
9. The connections between the quality of life and health.

10. Mental health, social support.
11. Definition of health and risk behaviours; their social determination.
12. The process of seeing a doctor.
13. Patient behaviour and role.
14. The medical profession. The doctor-patient relationship models.
15. Changing roles of healthcare professionals.
16. Disease models.
17. Direct and indirect social causes of diseases.
18. The connections between social inequalities and health: age; sex; occupation or unemployment; ethnicity.
19. Comparison of the different types of health care. Iatrogenesis, medicalization.
20. Sociological aspects of an aging population.

Compulsory reads

Szántó Zsuzsa, Susánszky Éva (szerk.): Orvosi szociológia Semmelweis Kiadó, Budapest 2003/2005.

Pikó Bettina: Egészségzociológia Új Mandátum Kiadó, 2002

Kopp Mária, Kovács Mónika (szerk.) A magyar népesség életminősége az ezredfordulón. Semmelweis Kiadó, Budapest, 2006

Recommended reads

Egészségjelentés 2015. Információk a hazai egészségveszteségek csökkentéséhez. NEFI, Budapest, 2015.

Európai lakossági egészségfelmérés, 2014. Statisztikai tükör 2015/29. KSH

Bálint Lajos, Kovács Katalin: Halandóság. in: Demográfiai portré 2015 NKI p:75-94.
<http://demografia.hu/kiadvanyokonline/index.php/demografiaipotre/issue/view/532>

Kovács Katalin, Tóth Gergely: Egészségi állapot. in: Demográfiai portré 2015 NKI p:95-114.
<http://demografia.hu/kiadvanyokonline/index.php/demografiaipotre/issue/view/532>

Monostori Judit: Öregedés és nyugdíjba vonulás. in: Demográfiai portré 2015 NKI p:115-134.
<http://demografia.hu/kiadvanyokonline/index.php/demografiaipotre/issue/view/532>

Orosz Éva, Kollányi Zsófia: Egészségi állapot, egészségügyenlétlenségek nemzetközi összehasonlításban in: Társadalmi riport 2016.
<http://www.tarki.hu/hu/publications/SR/2016/16orosz.pdf>

II. CARDIOLOGY

1. Causes of leading deaths in Hungary
2. Frequency of cardiovascular diseases in Hungary
3. Epidemiology of heart failure
4. Physical examination of the heart and circulatory system
5. Non-invasive cardiovascular examination methods
6. Invasive cardiovascular examination methods and interventions
7. Differential diagnosis of chest pain
8. Ischemic heart disease (risk factors, manifestation, diagnostics)
9. Diagnosis of acute coronary syndrome (unstable angina, NSTEMI, STEMI), treatment algorithms
10. Prevention of primary and secondary myocardial infarction, rehabilitation.
11. Early and late complications of myocardial infarction.
12. Heart failure (most common causes, pathophysiology, clinical manifestations and stages)

13. Definition and diagnosis of hypertension
14. Heart rhythm disorders
15. Circulatory diseases causing dyspnoea
16. Heart-derived oedema and cyanosis
17. Central and peripheral circulatory failure
18. Other organ failures caused by heart failure
19. Sudden cardiac death
20. Cardiopulmonary resuscitation (BLS, ALS).

III. BASICS OF PHYSIOTHERAPY

1. Basic elements/definitions in physiotherapy (in physiotherapy, physiotherapy, human kinesiology, biomechanics).
2. Division and systems of physiotherapy.
3. The basic elements, principles, movement types and exercise in physiotherapy.
4. Patient examination and biomechanical examinations in physiotherapy.
5. Essentials in history of national and international physiotherapy.
6. Research methodology in physiotherapy.
7. Clinical sport, basic concepts of sports therapy, guidelines, applicable exercise material.
8. Training theory in physiotherapy.
9. Primary and secondary prevention in physiotherapy.
10. Evidence based medicine in physiotherapy.
11. Cardiovascular physiotherapy, respiratory physiotherapy: methods, mechanism of action, indications, contraindications.
12. The peculiarities of sports physiotherapy and its movement in the field of primary prevention and rehabilitation, by age.
13. Methods in orthopaedic physiotherapy.
14. Physiotherapy methods used in traumatology physiotherapy.
15. Methods in rheumatological physiotherapy, indications, contraindications, other physiotherapy methods.
16. Neurological Physiotherapy.
17. Infant-paediatric physiotherapy.
18. Obstetrics-Gynaecological Physiotherapy.
19. Specialities, principles, and material of psychiatric physiotherapy. Relaxation therapies.
20. Geriatric Physiotherapy.

IV. NEONATAL ADAPTATION

1. Postnatal adaptation of circulation and breathing
2. The compromised newborn
3. Perinatal asphyxia
4. Respiratory distress syndrome in newborns
5. Primary care of the newborn in the delivery room
6. Perinatal infections
7. Polycythaemia in newborn
8. Neonatal anaemia
9. Neonatal jaundice (icterus)
10. *Morbus haemolyticus neonatorum*
11. Infant of a Mother with diabetes
12. Birth injuries during delivery

13. Types of newborn screening
14. Acute and chronic respiratory complications
15. Most common developmental disorders
16. Neonatal encephalopathies
17. Acute surgical disease in a newborn baby
18. Parenteral nutrition in premature infants
19. Acid-base imbalance and electrolyte disturbances in newborns
20. Energy features of premature infants

V. REPRODUCTIVE ENDOCRINOLOGY

1. Division of amenorrhea, diagnostic and therapeutic options
2. Intersexuality, gonad dysgenesis
3. Functional examination of ovaries, periodic diagnostics
4. Hyperandrogenic disorders, PCOS
5. Definition, symptoms and consequences of menopause.
6. Contemporary methods of contraception.
7. Origin, division and diagnosis of endometriosis
8. Treatment of endometriosis.
9. Diagnosis of infertility
10. Treatment of infertility (ovulation induction, AIH)
11. Physiology of puberty and menarche
12. Principles, indications, contraindications and side effects of menopausal hormone therapy.
13. Infertility treatment (IVF, ICSI),
14. Indications, contraindications, beneficial effects, complications of oral anticonception.
15. The relationship between hypothyroidism and infertility
16. Galactorrhoea, hyperprolactinaemia
17. Relationship between insulin resistance and the female reproductive system.
18. Kalmann's syndrome
19. Early ovarian failure.
20. Ovarian hyper stimulation syndrome.

VI. CLINICAL ONCOLOGY

1. The etiology of malignant tumors - physical, chemical, biological factors
2. Tumor evolution models. Genetic factors in cancer development.
3. Major risk factors of tumors
4. Nutrition and tumors
5. Lung cancer: epidemiology, prevention
6. Colorectal cancer: epidemiology, prevention
7. Breast cancer: epidemiology, prevention
8. Prostate cancer, cervical cancer, head and neck cancer: epidemiology, prevention
9. Liver tumors, pancreatic cancer, gastric cancer, esophageal cancer: epidemiology, prevention
10. Bladder tumors, uterine cancer, brain tumors, skin cancer, melanoma: epidemiology, prevention
11. Leukemia, lymphomas, testicular cancer, thyroid cancer: epidemiology, prevention
12. Cancer screening
13. Preblastomatosis. Tumor growth and metastasis. Stages of cancer.
14. Diagnosis of tumors: tumor markers, cytology

15. Diagnosis of tumors: imaging techniques, histology, molecular diagnostics
16. Chemotherapy, targeted cancer therapy
17. Hormone therapy, biological therapy
18. Radiation therapy, surgical therapy for cancer
19. Complementary medicine in oncology
20. Care, rehabilitation, psycho-oncology

Selected Bibliography

Onkológia (2011, szerk.: Dank Magdolna, digitális tananyag: www.tankonyvtar.hu)
 Az onkológia alapjai (2. kiadás, Medicina, 2017, szerk.: Kásler Miklós)
 Daganatok epidemiológiája (Orsós Zsuzsanna). in: Népegészségügyi orvostan (szerk: Ember-Kiss-Cseh, 2013, Pécsi Tudományegyetem Általános Orvostudományi Kar) 170-191. old.
 Karcinogenezis (Ember István – Gyöngyi Zoltán – Kiss István). in: Népegészségügyi orvostan (szerk: Ember-Kiss-Cseh, 2013, Pécsi Tudományegyetem Általános Orvostudományi Kar) 357-374. old.

VII. SPORT AND HEALTH SCIENCE

1. Sport Science - Universal and Body Culture.
2. Phases of the development of Hungarian sports science, criteria of independence.
3. The most important characteristics of sports science research, the objective and subjective possibilities of measuring the level of physical activity.
4. The socialization opportunities and values of sport in relation to a wide range of sporting activities.
5. The role, functions and importance of sport in shaping the quality of life of disabled people.
6. Physiological and psychological effects of regular exercise.
7. Effects of physical activity on health and quality of life.
8. Introduction to the social and economic determinants of physical activity and health.
9. The concept of load and its indicators are some general aspects of load application.
10. Differences between sports training and recreational training. Effects of recreational training.
11. Presentation of conditioning and coordination abilities and their development methods.
12. Description of load physiological examinations, presentation and interpretation of cardiovascular features.
13. Development and improvement of sports organizations in Hungary since 1867.
14. Objectives of sport policy. Strategy, administration and management in sport.
15. The economic basis of professional and recreational sports. Features of Sports Support and Sports Financing.
16. Relationship between sport education and sport science. Directions of development in sport pedagogy, its relation to the theory of physical education.
17. Definition, subject, tasks and main questions of sport pedagogy. Basic concepts of sports education (physical activity, exercises, physical education, health, well-being, fitness)
18. Education for tolerance of success and failure (Development of interest, orientation, self-esteem). Education of conscious discipline, endurance, activity in sport.
19. Tasks of the teacher in physical education and sport. Coach - parent - athlete relationship.

20. Integration aspects physical education and sport at school. Pedagogy of special groups in sports.

VIII. DIETETICS

1. Nutrition- Health Characterization of a healthy diet Nutrition recommendations in Hungary, their principles. Nutrition- Public Health Diseases Clinical nutrition
2. Food quality assurance Knowledge of food science
3. Food Microbiology
4. Food Marketing
5. Elderly nutrition. Diet therapy for osteoporosis.
6. Dietary management in cardiovascular disease. Cardio protective diet
7. Characterization in major food allergies and intolerances.
Dietary management in lactose intolerance (lactose intolerance)
Dietary treatment in celiac disease, gluten-sensitive enteropathy
Diet for Colitis Ulcerosa and Crohn's Disease.
Nutritional factors influencing gastric acidity, dietary treatment of ulcer
8. Introducing the Unified Diet System (EDR).
Esophageal lesions, dietary treatment of GOR.
Acute pancreatitis (pancreatitis acuta) dietary recommendations.
Dietary treatment of type 1 and type 2 diabetes mellitus
Diagnostic diets.
9. Diet for acute hepatitis
Diet for chronic hepatitis and cirrhosis of the liver
10. Characterization and role of meat in human nutrition
Grouping and characterization of meat products
11. The role of milk characterization in human nutrition
Grouping and characterization of dairy products
12. Characterization of grain and its role in nutrition
Grouping and characterization of bakery products
Grouping and characterization of confectionery products
13. Classification and characterization of vegetables
Grouping and characterization of fruits
The role of oilseeds in nutrition
The role of honey in nutrition and its characterization
14. Oxidation reactions in the body
The body's antioxidant system
Classification of antioxidants

Antioxidants in food

15. Functional food concept and characterization

Grouping and characterization of dietary supplements

Probiotics, prebiotics, symbiotics.

The role of fibers in maintaining health

16. Assessment of nutritional status, anthropometric characteristics.

Ways to Determine Energy Needs.

Obesity and a low-energy diet.

Malnutrition, recommended methods for screening for malnutrition.

Eating Disorders: Anorexia Nervosa

Eating disorders: bulimia nervosa

17. Healthy, balanced diet for some groups.

Special diets, vegetarianism.

Mediterranean diet.

Detoxification, role of fasting, immune boosting diet, healing nutrients.

18. Nutrition of athletes, basics of sports nutrition.

19. Classification and characterization of edible fats

Linoleic acid and alpha linolenic acid metabolism in the human body.

Changes in fatty acid consumption in the world and in Hungary.

Human cholesterol homeostasis.

20. Relationship between lipid metabolism and inflammation, cardiovascular disease and carcinogenesis.

Lipid analytical assays, Lipid biomarkers in the human body.

Production of Lipid Foods - Potential Food Improvements.

VIII. The Force of the Curriculum

(1) The Curriculum shall enter into force with its approval for the academic year 2021-2022

Prof Dr József BÓDIS MD PhD DSc m. p.

Full Professor

Leader of the Doctoral School of Health Sciences