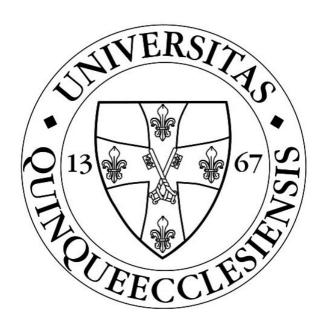
# UNIVERSITY OF PÉCS FACULTY OF HEALTH SCIENCES DOCTORAL SCHOOL OF HEALTH SCIENCES

## **DOCTORAL (PHD) CURRICULUM**



PÉCS 2024

## 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 Current Course list

Duration (hrs)	Credit:	Kurzus neve:	Lecturer:	Semester:	Type of examination:
14	1	Fundaments of research in health sciences	Dr. Bódis József	Fall	doctoral exam (written)
14	1	Surgical oncology – multidisciplinary approach (importance of diagnostics, treatment, feeding and rehabilitation) and actualities in the field of organ transplantation)	Dr. Bíró Adrienn Dr. Káposztás Zsolt József	Fall	doctoral exam (written)
14	2	Fundaments of finances in health care	Dr. Boncz Imre	Fall	doctoral exam (written)
14	1	Applied Exercises Physiology	Dr. Ihász Ferenc	Fall	doctoral exam (written)
14	1	Epidemiology I.	Dr. Kívés Zsuzsanna	Fall	doctoral exam (written)
14	1	First steps of conducting a systematic review	Dr. Lohner Szimonetta	Fall	doctoral exam (oral)
14	1	Advanced Nutrition and Metabolism	Dr- Ostojic Sergej	Fall	doctoral exam (written)
14	1	Insights into scientometrics	Dr. Prémusz Viktória	Fall	doctoral exam (written)
28	2	Statistical methods in research I.	Dr. Raposa László Bence	Fall	doctoral exam (written)
14	1	Scientific English: writing publications	Sélleyné Dr. Gyuró Mónika	Fall	doctoral exam (oral)
14	1	Invasive cardiological examination methods	Dr. Verzár Zsófia	Fall	doctoral exam (written)
14	1	On the Border of Health and Disease I.: The Role of Low- Grade Inflammation in Aging and Metabolic, Digestive and Immune System Disorders	Dr. Czimmer József	Fall	doctoral exam (written)
14	1	Women's health	Dr. Hock Márta	Spring	doctoral exam (written)
14	1	Social and economic impacts of international sport events organized in Hungary	Dr. Stocker Miklós	Spring	doctoral exam (written)
14	1	Current possibilities and challenges of first aid education and socialization	Dr. Bánfai Bálint	Spring	doctoral exam (written)
14	1	The role of complementary medicine in medical treatment	Dr. Hegyi Gabriella	Spring	doctoral exam (written)
14	1	Possibilities for examining and developing health literacy	Dr. Bánfai-Csonka Henrietta	Spring	doctoral exam (written)
14	1	Current issues of euthanasia, situation in Hungary and in the World	Dr. Verzár Zsófia Dr- Bányai Dávid	Spring	doctoral exam (written)

14	1	Licensing process for biomedical / human research	Prémusz Viktória dr.	Spring	doctoral exam (written)
14	1	Nutritional approaches to tackle chronic fatigue syndrome and long COVID	Dr- Ostojic Sergej	Spring	doctoral exam (written)
14	1	Relationship between physical activity and large population diseases: Exercise is Medicine concept	Dr. Tóth Miklós	Spring	doctoral exam (written)
14	1	Project proposal writing and Project management	Dr. Lampek Kinga	Spring	doctoral exam (oral)
28	2	Statistical methods in research II.	Dr. Raposa László Bence	Spring	doctoral exam (written)
14	1	Academic Public Speaking	Sélleyné Dr. Gyuró Mónika	Spring	doctoral exam (oral)
14	1	Epidemiology II.	Dr. Kívés Zsuzsanna	Spring	doctoral exam (written)
14	1	Basics of Sportdietetics	Dr. Raposa László Bence	Spring	doctoral exam (written)
28	2	Power Point - a key secret for thesis defense	Dr. Szentpéteri József László	Spring	doctoral exam (written)
28	2	Methodological questions of economic analyses in health care	Dr. Boncz Imre	Spring	doctoral exam (written)
14	1	Theoretical and practical foundations of quality-of-life assessments	Dr. Boncz Imre Dr. Sántics-Kajos Luca	Spring	doctoral exam (written)
14	1	On the Border of Health and Disease II.: Disoders of Gut- Brain Interactions: Basics of Functional Gastrointestinal Disorders	Dr. Czimmer József	Spring	doctoral exam (written)
	2	Scientific activity 1-2-3-4-5-6-7-8		ongoing (technical credit)	doctoral exam (written)
	25	Research credits 1-2-3-4-5-6-7-8		ongoing (technical credit)	doctoral exam (written)
	2	Dissertation credit 1-2-3-4		ongoing (technical credit)	doctoral exam (written)

# **Short syllabuses:**

Code	Lecturer	Title	Credit	Department	
	Prof. Dr.	Fundaments of research	1 credit / 14	PTE ETK	
FDIP1BOJ1	Bódis József	in health sciences	lessons	Doktori (PhD) és	
				Habilitációs Iroda	
Aim:	Getting to know	the basics of Health Science Re	esearch.		
	1. The relationsh	ip 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
	Dr. Bíró	Surgical oncology –	1 credit / 14	Kaposi Mór Oktató
FDIP10KAZ1	Adrienn	multidisciplinary	lessons	Kórház
		approach (importance of		*
		diagnostics, treatment,		PTE ETK
	Dr.	feeding and		Ápolástudományi
	Káposztás	rehabilitation) and		Tanszék
	Zsolt József	actualities in the field of		
		organ transplantation)		
Aim:	The purpose of this course is to give an insight of the multidisciplinary approach of how to diagnose and treat visceral malignancies including the perioperative feeding and rehabilitation. Furthermore, the students can gain knowledge regarding organ transplantation and donation.			

Code	Lecturer	Title	Credit	Department	
	Dr. Boncz Imre	Fundaments of finances	2 credits / 28	PTE ETK	
FFDIP4BOI2		in health care	lessons	Egészségbiztosítási	
				Intézet	
Aim:	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
FDIP6IHF2	Dr. Ihász Ferenc	Applied Exercises Physiology		
			lessons	Sporttudományi Intézet
	Acquiring knowledge individual stress plann	of stress physiology that proves ing.	beyond any dou	bt the importance of

Code	Lecturer	Title	Credit	Department
FDIP5JUK1	Dr. Kívés Zsuzsanna	Epidemiology I.	1 credit / 14 lessons	PTE ETK Egészségbiztosítási Intézet
Aim:	importance of dise Students should ge of the Hungarian p The student will be	s should become familiar with methods for comparing the public health note of diseases of different natures.  s should get acquainted with the sources on the basis of which the health status lungarian population can be described.  dent will be able to assess the relative public health significance of the problems eart of their own research and be able to interpret their research results from a		

Code	Lecturer	Title	Credit	Department
FDIP9LOS1	Dr. Lohner Szimonetta	First steps of conducting a systematic review	1 credit / 14 lessons	PTE ÁOK Orvosi Népegészségtani Intézet

Aim:	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
	David Dav	Advanced	1 1'4 / 14	DTE ETH
NDIPAVNM02	Prof. Dr. Ostojic	Nutrition and	1 credit / 14 lessons	PTE ETK Fizioterápiás és
NDIFA V NIVIOZ	Sergej	Metabolism	lessons	Sporttudományi Intézet
Aim:	Advanced Nutriti	on and Metabolism		

Code	Lecturer	Title	Credit	Department	
FDIPIIS1	Dr. Prémusz Viktória	Insights into scientometrics	1 credit / 14 lessons	PTE ETK Fizioterápiás és Sporttudományi Intézet	
Aim:	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
FDIP5JES1	Dr. Raposa L. Ben	ce Statistical me	thods 2 credit	s / 28	PTE ETK
		in research I.	lessons		Egészségtudomány
					i Alapozó,
					Szülésznői és
					Védőnői Intézet
Purpose:	practical knowledge scientific research. I of probability calcul Estimation and hype	e for the processing Experiment versus sulus. Population and so thesis testing. Estir for expected value (so	and evaluation of arvey. Qualitative ample, sample sel mation of confide sign tests, Mann-	empiricand quarection. Inceinter  Whitney	vals. One- and two- test, chi-square test,
Code	Lecturer	Title	Credit	Depa	artment
	Sélleyné dr.	Scientific	1 credit / 14	PTE	ETK
FDIP5SEM1	Gyuró Monika	<b>English: writing</b>	lessons	Egés	zségbiztosítási
	PhD.habil	publications		Intéz	zet

Aim:	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
	Dr. Verzár	Invasive	1 credit / 14	PTE ETK
FDIP1VEZ2	Zsófia	cardiological	lessons	Sürgősségi,
		examination		Egészségpedagógiai és
		methods		Ápolástudományi
				Intézet
Aim:	Determining the su	ining the suitability of invasive cardiological examination methods in everyday		
				ivity of the examinations,
	learning about the	advantages and limita	tions of the method	S.

Code	Lecturer	Title	Credit	Department	
	Dr. Czimmer	On the Border	1 credit / 14	PTE KK	
NDIPOBH1	József	of Health and	lessons	I. sz. Belgyógyászati	
		Disease I.: The		Klinika	
		Role of Low-			
		Grade			
		Inflammation in			
		Aging and			
		Metabolic,			
		Digestive and			
		Immune System			
		Disorders			
Aim:				us pathological conditions,	
	such as metabolic syndrome, insulin resistance, atherosclerosis, obesity or fatty liver				
	disease among many others. An imbalance in the gut microbiota and increased				
	intestinal permeability are also measurable and associated with low-level inflammation,				
	which is significantly influenced by lifestyle, physical activity, and dietary habits.				
	These processes have significant role in aging, contributing to the development of age-				
	related diseases and the aging process itself. Understanding this topic helps to better				
		th to health and the co	omplex preventive ar	nd therapeutic possibilities	
	available.				

Code	Lecturer	Title	Credit	Department
	Dr. Czimmer	On the Border	1 credit / 14	PTE KK
NDIPOBH2	József	of Health and	lessons	I. sz. Belgyógyászati
		Disease II.:		Klinika
		Disoders of Gut-		
		Brain		
		<b>Interactions:</b>		
		Basics of		
		Functional		
		Gastrointestinal		
		Disorders		

Aim:	Disorders of gut-brain interaction (DGBI) underlie the abdominal complaints and
	diseases affecting 20% of the adult population, significantly complicating the
	recognition of many diseases and the appropriate selection of lifestyle, dietary, or even
	pharmacological treatments. They can manifest with various symptoms, such as
	bloating, abdominal pain, hypersensitivity, and altered gastrointestinal motility.
	Irritable bowel syndrome and dyspepsia are the two most well-known members of this
	broad category. The underlying mechanisms show many similarities and are highly
	prevalent, making their understanding essential for all healthcare professionals. For
	those working in nutrition science, nursing, and medicine, recognizing and properly
	managing these disorders is of fundamental importance to practicing their profession
	correctly.

Code	Lecturer	Title	Credit	Department
FDIPWH1	Dr. Hock Márta	Women's health	1 kredit = 14 óra	PTE ETK
				Fizioterápiás és
				Sporttudományi
				Intézet
Purpose:	conditions, which i the health and/or p physiotherapy duri connection with the	the attending students is related the topic of the pathological musculosked in gregnancy. They gas menopause. The course in pelvic floor disorders prolapses.	Women's health. Steletal conditions and in insight the phyhelps understand the	tudents will overview d diseases and those sical activity and its e parts of the first line

Code	Lecturer	Title	Credit	Department
	Dr. Stocker	Social and	1 credit / 14	Budapesti Corvinus
FDIP6STM1	Miklós	economic	lessons	Egyetem
		impacts of		Vezetéstudományi
		international		Intézet
		sport events		
		organized in		
		Hungary		
Aim:	Social and econo	omic impacts of intern	ational sport events	organized in Hungary

Code	Lecturer	Title	Credit	Department
	Dr. Bánfai Bálint	Current	1 credit / 14	PTE ETK
		possibilities and	lessons	Sürgősségi,
FDIPCP1		challeges of first		Egészségpedagógiai
		aid education and		és Ápolástudományi
		socialization		Intézet

-	
Purpose:	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.

Code	Lecturer	Title	Credit	Department
FDIP4FIM1	Dr. Hegyi Gabriella	The role of complementary medicine in medical treatment	1 credit / 14 lessons	PTE ETK
Aim:	The role of comple	mentary medicine in	medical treatment.	

Code	Lecturer	Title	Credit	Department	
	Dr. Bánfai-	Possibilities for	1 credit / 14	PTE ETK	
FDIP6PEDH1	Csonka	examining and	lessons	Sürgősségi,	
	Henrietta	developing		Egészségpedagógiai és	
		health literacy		Ápolástudományi Intézet	
Aim:	Our level of health	literacy have an impa	act on our health-rela	ated decisions and our own	
	and society's health	, as well as influence	the health care syste	em, its costs and workload.	
	Hungary's general subjective and objective level of health literacy is also below the				
	European average.	If we draw people's	attention to the imp	ortance of helath literacy,	
	we will start to de	evelop it, thereby cre	eating a better healt	thcare system and a more	
	livable, healthier environment. Health literacy has an impact on disease prevention,				
				ct greater progress in these	
	areas as well, if we	can increase society'	s level of health awa	areness.	
	The aim of the co	urse is to familiarize	the PhD students v	with the concept of health	
	literacy in different age groups, as well as with the current indicators of health				
	awareness worldwide, in Europe and also in Hungary. Furthermore, the PhD students				
	get to know the different tools suitable for assessing health literacy, their types, their				
	evaluation, and the	n they can learn deve	lopment methods as	well.	

Code	Lecturer	Title	Credit	Department	
	Dr. Verzár	Current issues	1 credit / 14	PTE ETK	
FDIP6CIE1	Zsófia	of euthanasia,	lessons	Sürgősségi,	
		situation in		Egészségpedagógiai és	
		Hungary and in		Ápolástudományi Intézet	
	Dr. Bányai	the World		*	
	Dávid			PTE ETK	
Aim:	,	1. Introduction, description of the situation in Hungary			
	Ágnes Róza Balogh PhD				
	PTE Faculty of La	w, Department of Cri	minal Law, Doctroa	l School	
	2. Summary of the international legal situation				
	Dávid Bányai PhD				
	PTE Faculty of He	ealth Sciences			

Doctoral School of Health Sciences

3. Description of the legal situation in Hungary István Ágoston habil PhD,

PTE Faculty of Health Sciences Doctoral School of Health Sciences

4. The relationship between euthanasia and churches in Hungary and International outlook

Gusztáv Kovács Prof Rector Episcopal Theological College of Pécs Department of Human Dignity and Social Justice

5. Ethical issues of euthanasia

Judit Zeller habil PhD

PTE Faculty of Law, Department of Constitutional Law, Doctoral School

6. Communication issues

Orsolya Máté habil PhD

PTE Faculty of Health Sciences Doctoral School of Health Sciences

7. How can we help from a medical perspective and in the field of care Dr. Zsófia Verzár MD Prof, Miklós Lukács PhD student PTE Faculty of Health Sciences Doctoral School of Health Sciences invited Ágnes Csikós MD Prof

Code	Lecturer	Title	Credit	Department	
FDIPLP1	Dr. Prémusz	Licensing	1 credit / 14	PTE ETK	
	Viktória	process for	lessons	Fizioterápiás és	
		biomedical /		Sporttudományi Intézet	
		human research			
Aim:	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				
	Review of documents and requirements required for the authorization procedure in				
	connection with the authorization procedure for non-interventional examinations and				
	interventional examinations.				

Code	Lecturer	Title	Credit	Department
NDIPNAT01	Dr. Ostojic Sergej	Nutritional approaches to tackle chronic fatigue syndrome and long COVID	1 credit / 14 lessons	PTE ETK Fizioterápiás és Sporttudományi Intézet
Aim:	Nutritional appr	oaches to tackle chron	ic fatigue syndrom	e and long COVID

Code	Lecturer	Title	Credit	Department
FDIP9NTM01	Dr. Tóth Miklós	Relationship between physical activity and large population diseases:	1 credit / 14 lessons	PTE ETK Fizioterápiás és Sporttudományi Intézet

		Exercise is Medicine concept		
Aim:	Relationship betwe Medicine concept	en physical activity ar	nd large population d	iseases: Exercise is

Code	Lecturer	Title	Credit	Department
FNDIPPIPM1	Dr. Lampek Kinga	Project proposal writing and Project management	1 credit / 14 lessons	PTE ETK Egészségbiztosítási Intézet
Aim:	The aim of the course is to get information on the application process of European Union funding programmes, and to develop skills and competences of preparing application documentation. The main approach of the course is to develop practical skills which is facilitated by the presentation of case studies, the presentation of specific application documentation, and the teamwork on application writing.			

Code	Lecturer	Title	Credit	Department
	Dr. Raposa L.	Statistical	2 credit / 28	PTE ETK
FDIP5JES2	Bence	methods in	lessons	Egészségtudományi
		research II.		Alapozó, Szülésznői és
				Védőnői Intézet
Aim:	The course aims to consolidate the research skills of Ph.D. students in the practice and			
				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
FNDIP9LOS2	Dr. Lohner Szimonetta	Systematic reviews: collecting and combining data	1 credit / 14 lessons	PTE ÁOK Orvosi Népegészségtani Intézet
Aim:	Systematic review uses robust methodes to reduce bios in the gathering, summarizing, presenting, interpreting, and reporting of the research evicence.			

Code	Lecturer	Title	Credit	Department
FDIP8SGYM101	Sélleyné Gyuró Mónika	Academic Public Speaking	1 credit / 14 lessons	PTE ETK Egészségbiztosítási
	Wionika	Speaking	iessons	Intézet
Aim:	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.  The course also includes written communication with the publishing committee of the publishers.			

Code	Lecturer	Title	Credit	Department
FDIP5SAJ1	Dr. Kívés	Epidemiology II.	1 credit / 14	PTE ETK
	Zsuzsanna		lessons	Egészségbiztosítási
				Intézet
Aim:	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.  Students should be able to design studies that focus on relevant issues and produce reliable results.  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.			

Code	Lecturer	Title	Credit	Department
FDIP6BOS1	Dr.	Basics of	1 credit / 14	PTE ETK
	Raposa	Sportdietetics	lessons	Egészségtudományi
	László			Alapozó, Szülésznői és
	Bence			Védőnői Intézet
Aim:				mprehensive and thorough
				ples involved. During the
				activity and nutrition and
				alth and performance. The
	course will cover in detail the different nutrients and their role in sports performance,			
	as well as dietary, hydration and supplementation strategies to optimise and enhance			
	performance and recovery in athletes. It also focuses on presenting the latest scientific			
	research and highli	ghting its practical re	levance.	

Code	Lecturer	Title	Credit	Department	
FDIPPPA1	Dr. Szentpéteri	Power Point - a key	2 credits / 28	PTE ÁOK	
	József	secret for thesis	lessons	Transzdiszciplináris	
		defense		Kutatások Intézete	
Aim:	The practical side of successful academic presentation and PhD defense is supported				
	by the developmen	at of IT skills. The aim is	to improve the pre	esentation skills of the	
	participants from a	practical point of view	, at skill level, in o	rder to smoothly take	
	over the technical	barriers of expression du	ring scientific lectu	res, PhD defense and	
	professional career	s. In the lectures and pra	actices, we place sp	ecial emphasis on the	
	skill level develop	nent of the most common	nly 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	e, Adobe Creative Suite.			

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

Code	Lecturer	Title	Credit	Department

FDIP6TPFQ1	Dr. Boncz Imre	Theoretical and	1 credit / 14	PTE ETK
		practical	lessons	Egészségbiztosítási
		foundations of		Intézet
		quality-of-life		*
		assessments		PTE ETK
	Dr. Sántics-Kajos			Egészségbiztosítási
	Luca			Intézet
Aim:				w of the theoretical and
		ns of quality-of-life a		
	During the course,	doctoral students wil	l be introduced to the	e theoretical background,
	methodology, pract	tical relevance and po	ssible applications of	of quality-of-life
	assessments.	-		

Code	Lecturer	Title	Credit	Department
NDIPOBH1	Dr. Czimmer József	On the Border of Health and Disease II.: Disoders of Gut-Brain Interactions: Basics of Functional Gastrointestinal Disorders	1 credit / 14 lessons	PTE KK I. sz. Belgyógyászati Klinika
Aim:	Disorders of gut-brain interaction (DGBI) underlie the abdominal complaints and diseases affecting 20% of the adult population, significantly complicating the recognition of many diseases and the appropriate selection of lifestyle, dietary, or eve pharmacological treatments. They can manifest with various symptoms, such as bloating, abdominal pain, hypersensitivity, and altered gastrointestinal motility. Irritable bowel syndrome and dyspepsia are the two most well-known members of thi broad category. The underlying mechanisms show many similarities and are highly prevalent, making their understanding essential for all healthcare professionals. For those working in nutrition science, nursing, and medicine, recognizing and properly managing these disorders is of fundamental importance to practicing their profession correctly.		complicating the f lifestyle, dietary, or even symptoms, such as pintestinal motility. ell-known members of this nilarities and are highly acare professionals. For ecognizing and properly	

## **Detailed Course Descriptions and Schedules**

The courses offered in the current semester, along with detailed descriptions, are available at: <a href="https://doktoriiskola.etk.pte.hu/doktori">https://doktoriiskola.etk.pte.hu/doktori</a> kepzes/phd-kurzusok

The schedule and location of courses can be accessed by logging into the Neptun system, either in the Calendar view or under the detailed information for each course.

### II. Research Programs and Topics of the Doctoral School of Health Sciences

Progams of the Doctoral School of Health Sciences September 2021

#### Head of Doctoral School: Prof. Dr. Kiss, István MD., PhD., DSc.

	Area of Study	Name of Program leader / supervisor
Program Nr. 1 / PR-1	FRONTIERS OF HEALTH SCIENCES	Prof. Dr. Kovács, L. Gábor program 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-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-15	Effects of working in three-shift system on biorhytm.	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-27	Special situations in emergency care	Dr. Betlehem, József supervisor Dr. Pandur, Attila András co- 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 disabilites, and possible directions of development in terms of equal opportunities	Dr. Bódis, József supervisor, Dr. Chronowski, Nóra co-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 Integrative Medicine therapies	Dr. Hegyi, Gabriella supervisor
E-37	Integrative Medicine: demand and acceptance, possibilities of inserting into Health Care System	Dr. Hegyi, Gabriella supervisor
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 protocolls	Dr. Oláh, András supervisor

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E-41	Possibilities to improve nursing practice with respect to the international practice	Dr. Oláh, András supervisor
E-42	Developement 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, Dr. Csókási, Krisztina co- 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-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. Pusztafalvi, Henriette 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
E-61	Historical epidemiology studies	Dr. Pusztafalvi, Henriette supervisor Dr. Takács, Mária Zsuzsanna co- 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	Intercultural competences in healthcare	Dr. Németh Timea 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, Dr. Sipos, Dávid co- 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
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-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
L-01	The Fractice of analytic elemical methods in the personal identification	supervisor,
		Dr. Wiegand,
		Norbert co-
		supervisor
E-82	Recovery from perinatal loss – Bereavement support	Dr. Lampek, Kinga
E-62	Recovery from permatar loss – Bereavement support	
		supervisor, Dr. B.
		Erdős, Márta co-
E 02		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	Dr. Deutsch,
	status in different occupational groups	Krisztina supervisor,
		Dr. Kívés,
		Zsuzsanna co-
		supervisor
E-86	Transformation of health sciences and science popularization in the digital age	Dr. Csongor,
2 30	Timesofficial of ficular selection and selection popularization in the digital age	Alexandra
		supervisor
E-87	Medical and Health Care Communication – Interdisciplinary approaches	Dr. Koppán, Ágnes
E-0/	Wedicar and Health Care Communication – Interdisciplinary approaches	supervisor
		supervisor
E-88	Interviewing strategies in the patient interview – language tools of assertive	Dr. Lepenye,
	communication and empathy	Katalin supervisor
E-89	Functional-pragmatic analysis of encounters of health providers and patients	Dr. Kőhalmi, Anikó
L-07	1 unctional-pragmatic analysis of encounters of heartif providers and patients	supervisor,
		Dr. Kránicz, Rita co-
		supervisor
E-90	The encourage are and multiplies again agreets of multimorphid an agree matients	· •
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	Dr. Balogh, Sándor
	on health institutions	supervisor,
		Dr. Hegedűs,
		Mihály co-
		supervisor
E-92	Possibilities to improve nursing practice with respect to the international practice	Dr. Oláh, András
- / <b>-</b>		supervisor,
		Dr. Zrínyi, Miklós
		co-supervisor
E-93	Mental illness and language use: diagnostic and therapeutic options	Dr. Kőhalmi, Anikó
L-93	Months inness and language use, diagnostic and dicrapeutic options	supervisor,
		Dr. Herold, Róbert
		· ·
E 06	Complex analyses of medical de augmentation	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
L-70	Ose of virtual reality therapy in neurological patients	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, violationmanagement 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, Dr. Máté, Orsolya co-supervisor
E-108	Impact of SARS-COV-2 pandemic of GP care	Dr. Balogh, Sándor 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	Language learning strategies, autonomous language learning and effective teaching techniques in languages for healthcare purposes.	Dr. Hild, Gabriella supervisor
E-117	Opportunities and challenges of first aid education and socialization	Dr. Bánfai, Bálint supervisor
E-118	The added value of integrative medicine for evidence-based medicine	Dr. Szőke, Henrik supervisor
E-119	Evolution and evaluation of the health innovation ecosystem in the international and domestic environment	Dr. Zrínyi, Miklós supervisor, Dr. Lampek, Kinga co-supervisor

E-120	Reform and Sustaining of Superannuation System in Hungary	Dr. Varga, Zoltán supervisor
E-121	The role of the advanced practice nurse (APN) in the community of practice teamin each client pathway	Dr. Siket, Adrienn supervisor
E-122	Redefining nursing skills in AI and robotisation, with a particular focus on conditions requiring long-term care.	Dr. Siket, Adrienn supervisor
E-124	Microbiological examination of nosocomial infections and their association with the use of nursing devices	Dr. Takács, Krisztina supervisor
E-125	New directions of health promotion	Dr. Vitrai, József supervisor
E-126	Importance of pedagogical skills in medical education: Teaching and learning behaviors of teachers and undergraduate medical students in Hungary.	Dr. Ternák, Gábor supervisor
E-127	Investigation of the extent of root resorption subjected to lingual and buccal jiggling movements	Dr. Frank, Dorottya supervisor
E-128	The effects of verbal and physical abuse on the complex state of health, its somatic manifestations in the young adult population	Dr. Beke, Szilvia supervisor
E-129	Short- and long-term effects of COVID-19 infection on taste perception and food preference	Dr. Raposa, László Bence supervisor
E-130	Public health aspects of iron metabolism	Dr. Egyed, Miklós supervisor
E-131	Efficiency of health insurance systems based on real-world & big data	Dr. Boncz, Imre supervisor
E-134	The role of prevention and rehabilitation in aesthetic sports, the identification of typical injury profiles in sports and their physical and psychological impacts on health	Dr. Bobály, Viktória supervisor, Dr. Csenki, Laura co-supervisor
E-135	Health prevention in digital age	Dr. Figler, Mária supervisor Dr. Szabó, Zsolt Roland co- supervisor
E-136	The role of health literacy in the effectiveness of nurse led patient education program	Dr. Betlehem, József supervisor
E-139	Preservation of mental health in changing workplace communities	Dr. Csima, Melinda supervisor, Dr. Sipos Dávid co- supervisor
E-140	The role and importance of health and health policy in the operation of employee and company welfare /well-being systems	Dr. Juhász, Gábor supervisor
E-141	Supportive communication in health science texts	Dr. Mány, Dániel supervisor
E-142	Implementing infection control in practice: measuring hand hygiene compliance and following a central venous catheter (CVC) care protocol in a county hospital	Dr. Zrínyi Miklós supervisor, Dr. Pusztafalvi Henriette co-supervisor

E-143	Examination of the consumption of traditional psychoactive substances by people living in segregated areas	Dr. Csima, Melinda supervisor
E-144	Application of modern teaching methods and tools for learning motivation and experience	Dr. Radnai, Balázs supervisor Dr. Keresztélyné Dr. Barta, Andrea co-supervisor
E-145	The effect of burnout syndrome and post-traumatic stress syndrome on self-assessment of health status among emergency and emergency workers in Hungary	Dr. Pakai, Annamária supervisor
E-146	Possibilities and challenges of developing health understanding in our everyday life	Dr. Bánfai-Csonka, Henrietta supervisor
E-147	The multidimensional study of parental burnout syndrome in Hungary	Dr. Pakai, Annamária supervisor
E-148	Opportunities for mental support within the healthcare provider team, burnout prevention.	Dr. Zelena, András supervisor
E-150	Nursing Informatics Competency Self-Assessment Scale (SANICS) Translation, Adaptation, and Validation in the Context of Hungary, and Survey Among College Nursing Students	Dr. Máté, Orsolya témavezető
E-152	Multidisciplinary management of tinnitus	Dr. Molnár, András supervisor
Program Nr. 2 / PR-2	CARDIOVASCULAR HEALTH SCIENCE	Prof. Dr. Verzár, Zsófia program leader
K-1	Preventive methods for cardio-, and cerebrovascular diseases	Dr. Cziráki, Attila supervisor, Dr. Verzár, Zsófia co-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. Bódis, József 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-11	Preventive methods in tumour diseases  Prevention methods for vascular and cardiovascular diseases	

		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
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 patienst 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
K-23	Medical, legal and social aspects of end-of-life decisions	Dr. Verzár, Zsófia supervisor, Dr. Dávid, Bánya co-supervisor
Program Nr. 3 / PR-3	TREATMENT OF LOCOMOTOR DISORDERS	Prof. Dr. Kránicz, János program leader
M-1	Prevention, possibilities of care and effects on quiality 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. Kránicz, János supervisor, Dr. Hock, Márta co- supervisor
M-4	Biomechanical, biochemical, epidemiological and pathophysiological aspects of prevention of infantile and adult spine diseases	Dr. Kránicz, 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. Kránicz, 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. Kránicz, János supervisor
M-7	Analysis of the shoulder's kinesiology, biomechanics and pathlogy with ZEBRIS CMS-HS ultrasound-based spatial motion monitoring	Dr. Kránicz, János supervisor
M-8	Examination of factors affecting the efficiency of radiosynoviorthesis	Dr. Szentesi, Margit supervisor
M-10	Connection between the bioligical risk, the local activity of joints, and the efficiency of radiosynoviorthesis	Dr. Szentesi, Margit supervisor, Dr. Ritter, Zsombor 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 rheumathological diseases	Dr. Langmár, Zoltán supervisor
M-13	Role of the ultrasound examination in the diagnosis prior to radiosynoviothesis 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. Kránicz, János supervisor
M-22	The use of the climbing wall by the children's rehabilitation	Dr. Kránicz, 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
M-25	Examination of the physical activity and physiotherapy treatment options for postmenopausal women and elderly patients, as well as their care	Dr. Hock, Márta supervisor, Dr. Prémusz, Viktória co- supervisor

Program Nr. 4 / PR-4	PERINATAL HEALTH SCIENCE	Prof. Dr. Bódis, József program leader
P-2	Epidemiology of congenital anomalies	Dr. Sándor, János supervisor
P-3	Low birthweight: epidemiological, sociological, pathophysiological and clinical consideration	Dr. Bódis, József supervisor
P-4	The importance of low birthweight in the development of adult diseases	Dr. Bódis, József supervisor
P-5	Modern aspects of infants' feeding	Dr. Bódis, József supervisor
P-6	Water and electrolyte metabolism in the neonate: renal and endocrine regulation	Dr. Bódis, József supervisor
P-7	Primary and secondary prevention of perinatal hypoxic brain injury (epidemiology, neurohabilitation, early developmental programs)	Dr. Bódis, József supervisor
P-8	The importance of smoking in perinatal, infant and childhood morbidities	Dr. Bódis, József supervisor
P-9	Clinical significance of hormones derived from adipocyte and skeletal tissues	Dr. Bódis, József supervisor
P-10	The importance of novel hormones, hormone-like substances in the perinatal adaptation	Dr. Bódis, József 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	Dr. Tóth, Gergely Péter supervisor
P-15	Quality of life of children with hydrocephalus and ventriculoperitoneal shunt	Dr. Hollódy, Katalin supervisor
P-16	The importance of understanding fetal competencies in the prenatal period for Mother-Infant relationship and communication	Dr. Zelena, András supervisor
Program Nr. 5 / PR-5	HUMAN REPRODUCTION	Prof. Dr. Bódis, József program 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 Dr. Szabó, Zoltán
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-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

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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-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 analysiy of the peritonel 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 supervisor, Dr. Németh, Zoltán co-supervisor
R-35	Morphological analysis of cellular elements involved in reproduction in pathological conditions	Dr. Kovács, Kálmán supervisor, Dr. Nagy, Bernadett co-supervisor
R-36	Regional differences in infertility care by socio-demographic aspects	Dr. Kovács, Kálmán supervisor, Dr. Prémusz, Viktória co- supervisor
R-37	The possible role of the microbiota of the female genital tract in the successful outcome of in vitro fertilization (IVF)	Dr. Kovács, Kálmán supervisor
R-39	Increasing the efficiency of in vitro fertilization (IVF) laboratory workflows and procedures	Dr. Bódis, József supervisor Dr. Kovács, Kálmán co-supervisor
R-40	Medical diagnosis, medical and legal aspects of child sexual abuse	Dr. Csorba, Roland supervisor
R-41	Uterine transplantation	Dr. Farkas, Bálint supervisor,Dr. Fazekas, Gábor co- supervisor

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R-42	The global public health significance of reproductive health and infertility	Dr. Prémusz,
		Viktória co-
		supervisor
R-43	Follicular fluid biomarkers and their role in IVF success	Dr. Kovács, Kálmán
		supervisor
		Dr. Mauchart, Péter
		co-supervisor
R-44	The evaluation of various factors influencing the efficacy of frozen embryo transfer	Dr. Péter, Kovács
	treatments	supervisor
		Dr. Kálmán, Kovács
		co-supervisor
R-45	Potential of telemedical home monitoring in obstetrical practice	Dr. Bódis, József
10 43	1 definition of telemedical nome monitoring in observed practice	supervisor
		Dr. Török, Miklós
		-
D	ONGOLOGY, HEALTH COUNCES	co-supervisor
Program	ONCOLOGY - HEALTH SCIENCES	Prof. Dr. Kiss,
Nr. 6 /		István
PR-6		program leader
PR-6/1	PREVENTIVE ONCOLOGY	Prof. Dr. Kiss,
	Subprogram	István
		subprogram leader
O-3	Efficiency of the most modern methods in radiation therapy in the patients of	Dr. Mangel, László
	University of Pécs, Medical School	supervisor,
		Dr. Boronkai, Árpád
		co-supervisor
O-4	Historical demography of Hungary	Dr. Kiss, István
	Therefore with graphy of Hungary	supervisor
		_
O-5	Environmental carcinogenesis	Dr. Kiss, István
		supervisor
O-6	Nutrition and cancer	Dr. Kiss, István
	Tradition and cancer	supervisor
		Super visor
O-7	Molecular epidemiology of cancer	Dr. Kiss, István
0 /	Molecular epidermology of cancer	supervisor,
		Dr. Jung, János co-
		supervisor
0.0	D 11: 1 14 11 1	1
O-8	Public health problems and programs with respects to helth insurance and health	Dr. Boncz, Imre
	economy	supervisor,
		Dr. Vajda, Réka co-
		supervisor
O-11	Primary secondary and tertiary prevention in cancer	Dr. Kiss, István
		supervisor
O-12	Genetical and genomical epidemiology	Dr. Kiss, István
0-12	Genetical and genomical epidennology	
		supervisor
O-14	Chemoprevention of cancer	Dr. Kiss, István
		supervisor
0.15		_
O-17	Alternative ways in cancer prevention	Dr. Kiss, István
		supervisor
O-21	Analysis of factors improving the diagnosing, perioperative and oncologic treatment	Dr. Oláh, Tibor
	of patients with colon cancer	supervisor,
		Dr. Boronkai, Árpád
		co-supervisor
O-22	Role of Micro RNAs in carcinogenesis and prevention	Dr. Kiss, István
J 22	1010 of Micro 14 (16 in carolinogonesis and prevention	supervisor
		Super visor

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-30	Nutritional status and diatery habits of homeless people	Dr. Rákosy, Zsuzsa 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. Rákosy, 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	Diagnosis and treatment of solid abdominal malignancies and actualities in the field of organ transplantation	Dr. Káposztás, Zsolt supervisor Dr. Biró, Adrienn co-supervisor
O-42	Microbiom composition and the pathogenesis of colorectal cancer patients	Dr. Raposa, László Bence supervisor, Dr. Káposztás, Zsolt co-supervisor
O-44	Surgical treatment of Thoracic Disorders	Dr. Szántó, Zalán supervisor
O-45	Public health implications of myeloproliferative neoplasms	Dr. Egyed, Miklós supervisor
O-46	The effect of early, intensive mobilization in the prevention of complications after acute abdominal surgeries	Dr. Biró, Adrienn supervisor, Dr. Tollár, József co-supervisor

PR-6/2	DIAGNOSTIC MEDICAL IMAGING	Prof. Dr. Bogner,
	Subprogram	Péter subprogram leader
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 multymodality imaging in the diagnosis, prognosis and follow up of therapy in lymphoma patients	Dr. Ritter, Zsombor supervisor, Dr. Alizadeh Hussain co- supervisor
O-2-10	The integration of functional cross-sectional imaging in 3D conformal radiation therapy of brain tumors	Dr. Kovács, Árpád 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

Program Nr. 7 / PR-7	SPORT and HEALTH SCIENCES	Dr. Rétsági, Erzsébet program leader
O-3-15	The role of the microbiome in the development and maintenance of chronic diseases	Dr. Rajnics, Péter 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-3-13	Significance of monitoring during endoscopy with special regard to the sedoanalgesic premedication	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-3-1	Gastroenterological endoscopic diagnostic and therapeutic procedures	Dr. Döbrönte, Zoltán supervisor
PR-6/3	GASTROENTEROLOGICAL DISEASES Subprogram	Prof. Dr. Döbrönte, Zoltán subprogram leader
O-2-32	Multimodal, molecular imaging for the assessment of myocardial perfusion and viability	Dr. Ritter, Zsombor supervisor
O-2-31	The role of molecular imaging techniques in the diagnostic evaluation and therpeutic planning of solid tumors	társtémavezető  Dr. Ritter, Zsombor supervisor
O-2-30	Modern imaging techniques in the field of nuclear medicine	Dr. Ritter Zsombor témavezető, Dr. Sipos Dávid
O-2-29	Examination of dizziness and headaches using imaging studies	Dr. Tollár, József 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
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-2-26	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-2-25	Investigation of mechanical changes in the brain by transcranial doppler (TDC) and radiological imaging	Dr. Vajda, Zsolt supervisor, Dr. Tollár, József co-supervisor
O-2-24	High dose radiotherapy procedures requiring precision, multimodal imaging	Dr. Kovács, Árpád supervisor, Dr. Lakosi, Ferenc co-supervisor
O-2-23	The importance of hybride imaging in receptor scintigraphies	Dr. Ritter, Zsolt supervisor

		Dr. Ács, Pongrác co-program 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
S-8	The Optimum Arousal Theroy - to be in the ZONE - the State and the Possibilty of Measuring within Elite and Recreational Sports	Dr. Balogh, László supervisor, Dr. Rátgéber, László co-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, Dr. Pótó, Zsuzsanna co-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-17	Micro-and macro-economic effects of physical activity	Dr. Ács, Pongrác 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, Dr. Melczer, Csaba co-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-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. Tóth, Miklós supervisor, Dr. Ács, Pongrác 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
S-28	The effect of combat sports and martial arts on personality in public education and sport	Dr. Morvay-Sey Kata 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-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. Karsai, István co-supervisor
S-42	Investigation of biomechanical and cognitive changes under varying intensity load	Dr. Tollár, József supervisor, Dr. Kovács, Árpád co-supervisor
S-43	Animation in the health sciences	Dr. Cselik, Bence supervisor
S-44	Marketing in sports and health sciences	Dr. Cselik, Bence supervisor
S-46	Outdoor physical activity and active lifestyle attitude of employees	Dr. Ács, Pongrác supervisor, Dr. Prémusz, Viktória co- supervisor
S-47	Dimensions of sustainability in children's camps: interactions between the "green turn" and the culture of health	Dr. Nemeskéri, Zsolt supervisor
S-48	The effects of Q angle in groin injuries in female athletes	Dr. Ostojic, Sergej supervisor, Dr. Rátgéber, László co- supervisor
S-49	Health and sports science aspects of movement therapies in prevention and rehabilitation	Dr. Szilágyi, Brigitta supervisor, Dr. Makai, Alexandra cosupervisor
S-50	Special and alternative exercise programs and women's health	Dr. Hock, Márta supervisor, Dr. Prémusz, Viktória co- supervisor
S-51	Women's health and physical activity	Dr. Hock, Márta supervisor, Dr. Makai, Alexandra co- supervisor
S-53	Cardiac adaptation in physiological and pathological conditions	Dr. Szokodi, István supervisor
S-55	The effect of physical activity/inactivity on the human body	Dr. Melczer, Csaba supervisor
S-56	Passion and exercise addiction among athletes	Dr. Szabó, Attila supervisor Dr. Morvay-Sey, Kata co-supervisor
S-57	Examining the biomechanical aspects of injuries and overuse of overhead sports and the effectiveness of physiotherapy treatment methods	Dr. Makai, Alexandra supervisor Dr. Tardi, Péter

		Sándor co- supervisor	
S-58	Comparison, examination and development of performance measurement systems developed for rowing sports	Dr. Győri, Ferenc supervisor	
S-60	A comprehensive approach to evaluating vestibular symptoms; examination of vestibular disorders using video-head impulse testing	Dr. Molnár, András supervisor	
Program Nr. 8. / PR-8	FOOD SCIENCES, NUTRITION, DIETETICS and HYDRATION	Prof. Dr. Figler Mária program 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-15	Diet in the manegement 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
1 17	Quanty of the study in nutrition related diseases	supervisor,
		Dr. Szabó, Éva co-
		*
т 20	N 4 2 1 1 CC 4 21 4 1 1 2 4 4 4 4 1 1 2 1	supervisor
T-20	Nutritional role of fatty acid intake and its instrumental analysis	Dr. Szabó, Éva
		supervisor
T-23	Analysis of plant secondary metabolites	Dr. Kisbenedek, An
		drea supervisor,
		Dr. Stromájer-
		Rácz, Timea co-
		supervisor
T-24	The effects of nutrition on gut microbiome	Dr. Polyák, Éva
1 2 1	The checks of nation on gut interoclome	supervisor
		super visor
T-25	Investigation of fruits and consumption habits	Dr. Kisbenedek,
		Andrea supervisor,
		Dr. Gerencsér,
		Gellért co-
		supervisor
T-26	Eating habits and lifestyle of students in public education	Dr. Kisbenedek,
1-20	Lating habits and mestyle of students in public education	Andrea
T-27	Role of nutrition in mental health	Dr. Polyák, Éva
		supervisor
T-28	Fatty acid profile and dietary factors in different diseases	Dr. Polyák, Éva
		supervisor
T-30	Nutritional role of grape plant	Dr. Szabó, Éva
		supervisor
		Dr. Kőrösi, László
		co-supervisor
T-30	Nutritional role of grape plant	Dr. Szabó, Éva
	8L - L	supervisor
		Dr. Kőrösi, László
		co-supervisor
T-31	Manipulating the gut microbiota in different diseases	Dr. Polyák Éva
1-31	istampulating the gut interoofota in different diseases	supervisor
		Dr. Figler Mária co-
		THE DIGIET MISTIS CO.
		_
		supervisor
T-32	The role of carbohydrate maldigestion and malabsorption in the development of	supervisor  Dr. Czimmer József
T-32	The role of carbohydrate maldigestion and malabsorption in the development of functional bowel disorders	supervisor
	functional bowel disorders	supervisor  Dr. Czimmer József supervisor
T-32	7	supervisor  Dr. Czimmer József

# 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				
_	xam (theoretical pated the research		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 (Final certificate)									

## IV. Study Plan

	Course Code	Name of Course	Lecturer	Hours		Credit
				Theory	Practice	
1. Semester						•
Mandatory	FDIP1BOJ1	Fundaments of research in health sciences	Prof. Dr. Bódis József	14	0	1
	FFDIP4BOI2	Fundaments of finances in health care	Prof. Dr. Boncz Imre	28	0	2
	FDIP5JUK1	Epidemiology I.	Dr. Kívés Zsuzsanna	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. Kívés Zsuzsanna	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
	NDIPAVNM02	Advanced Nutrition and Metabolism	Prof. Sergej M. Ostojic	14	0	1
3. Semester				L.		
Mandatory	FDIPLP1	Licensing process for biomedical / human research	Dr. Prémusz Viktória	14	0	1
Optional	FDIP6CIE1	Current issues of	Dr. Verzár Zsófia	14	0	1
· F · · · · · · ·		euthanasia, situation in Hungary and in the World	Dr. Bányai Dávid			
	FDIPCP1	Current possibilities and challeges of first aid education and socialization	Dr. Bánfai Bálint	14	0	1
	FDIPIIS1	Insights into scientometrics	Dr. Prémusz Viktória	14	0	1
4. Semester						1
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

F	NDIP9NTM01	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

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 coauthorship!) 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. <b>Participation in courses</b> (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. <b>Teaching activity (in higher education)</b> fit into the discipline of the PhD program concerned	1,5/	credits
7. <b>Research group</b> 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

#### For doctoral students who started their studies after the Academic Year 2016/2017

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 processs 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 Pules and Pagulations of the Doctoral School

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:

	Program	Program leader
	GENERAL SUBJECT	PROGRAM SPECIFIC SUBJECT
PR-1	Frontiers of Health Sciences	Prof. Dr. Kovács, L. Gábor program leader
	<b>Epidemiology and Research</b> methodology	Health Economy/ Health Sociology
PR-2	Cardiovascular Health Science	Dr. Verzár, Zsófia program leader
	Epidemiology and Research methodology	Cardiovascular Disorders
PR-3	Treatment of Locomotive Disorders	Prof. Dr. Kránicz, János program leader
	Epidemiology and Research methodology	Fundaments of Physiotherapy
PR-4	Perinatal Health Science	Prof. Dr. József, Bódis program leader

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

The request for exemption must be submitted when applying for the exam.

#### 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 2<sup>nd</sup> subject and the **submission of the written Complex Exam** (research plan/ report signed by the supervisor)

More information given when applying for the exam.

#### **Dates of the Complex Exam**

Accurate information will be provided later on the website and, for students scheduled to take the exam, via email. An online briefing will be held in the MS Teams system following the exam announcement, to which all relevant students and supervisors will be invited.

#### **Expected time of retake examination**

The exam retake will take place in the same semester – in the last week of January for the fall semester and in the last week of August for the spring semester. The student will be informed of the final date in writing, and the exam announcement will also be posted on the website.

#### 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

<u>Cseh Károly</u>, <u>Ember István</u>, <u>Kiss István</u>: *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

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

#### Supplementary reading

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

В

#### 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: Egészségszociológia 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. <a href="http://demografia.hu/kiadvanyokonline/index.php/demografiaiportre/issue/view/532">http://demografia.hu/kiadvanyokonline/index.php/demografiaiportre/issue/view/532</a>

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

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

Orosz Éva, Kollányi Zsófia: Egészségi állapot, egészségegyenlőtlenségek 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 PhD final examination

#### (for doctoral students who started their studies before the Academic Year 2016/2017)

The PhD final examination is a public oral examination in one or two subjects assessed by the Final Examination Board contracted by the DHCHS. The subject is related to the doctoral student's wider area of research. The discipline of the final examination and its detailed topics are identified by the DHCHS acting upon the proposal of the CDS within one month following the application. The final examination is to be announced a week before its day in the way usually used at the Faculty.

From one of the subjects of the PhD final examination the DHCHS may provide exemption for candidates, who

- a) have passed a PhD final examination in the subject either in this country or abroad, or have passed an examination accepted by the DHCHS as equal to the PhD final examination (only excellent final examination results are acceptable),
- b) have taught for at least two years as a subject of the final examination in the graduate education
- c) are authors of monographies on the subject.

The Final Examination Board consists of the Chair and two members. The Chair is a professor emeritus of the subject, one of the members cannot have a public employement relationship with the University. On the Final Examination Board no individual can serve who in the opinion of the EDHT cannot be expected to make objective judgements. The candidate is to be imformed about the members and Chair of the Final Examination Board. The candidate – 25 exclusively in cases of incompatibility or bias – may present an appeal to the DHCHS within 8 days.

All matters related to the operation of the Final Examination Board are decided in closed session with open ballott and majority vote, the Chair is to vote last, only 'yes' or 'no' votes are possible.

Final examination can be conducted only when all the three members of the board are present. The questions asked and the replies given to them and the successful or unsuccessful result of the final examination are entered into the minutes by the Final Examination Board. The result of the final examination is scored by each member of the committee on a scale from one to five. The final examination is regarded successful if the candidate scores 60 percent or more of the available points. The qualification of the doctoral final examination: summa cum laude (over 85 percent), cum laude (70-85 percent) and rite (below 70 percent). The result is to be announced right after the final examination. The submission of the modified (final) form of the theses, its assessment and the defence are only possible following the successful PhD final examination.

If unsuccessful, the PhD final examination can be retaken on one occasion after six months, but within two years following the submission of the application for degree earning it is to be passed.

On setting up the committees' special attention is to be paid to avoid incompatibility. One individual may participate only in one phase of the procedure.

## IX. The Force of the Curriculum

(1) 11	he Curriculum	shall enter into	force with its app	proval for the academic	year 2024-2025
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Prof Dr István KISS MD PhD DSc m. p. Full Professor Leader of the Doctoral School of Health Sciences