

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

**DOCTORAL (PHD) CURRICULUM**



**PÉCS  
2025**

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<br>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 cardiologial 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<br>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<br>Dr. Sántics-Kajos Luca | Spring                     | doctoral exam (written) |
| 14 | 1  | On the Border of Health and Disease II.: Disorders 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                                        |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------|---------------------------------------------------|
| FDIP1BOJ1 | <b>Prof. Dr. Bódis József</b>                                                                                                                                                                                                                                                                     | <b>Fundaments of research in health sciences</b> | 1 credit / 14 lessons | PTE ETK<br>Doktori (PhD) és<br>Habilitációs Iroda |
| Aim:      | Getting to know the basics of Health Science Research.<br><br>1. The relationship between theory and practice<br>2. Types of research<br>3. General classification of research<br>4. Types of research<br>5. Process<br>6. Elements of the research plan<br>1-1 Presentation of specific research |                                                  |                       |                                                   |

| Code       | Lecturer                                                                                                                                                                                                                                                                                 | Title                                                                                                                                                                           | Credit                | Department                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------|
| FDIP10KAZ1 | <b>Dr. Bíró Adrienn</b><br><br><b>Dr. Káposztás Zsolt József</b>                                                                                                                                                                                                                         | <b>Surgical oncology – multidisciplinary approach (importance of diagnostics, treatment, feeding and rehabilitation) and actualities in the field of organ transplantation)</b> | 1 credit / 14 lessons | Kaposi Mór Oktató Kórház<br>*<br>PTE ETK<br>Ápolástudományi Tanszék |
| 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                             |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------|----------------------------------------|
| FFDIP4BOI2 | <b>Dr. Boncz Imre</b>                                                                                                                                   | <b>Fundaments of finances in health care</b> | 2 credits / 28 lessons | PTE ETK<br>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 | <b>Dr. Ihász Ferenc</b>                                                                                             | <b>Applied Exercises Physiology</b> | 1 credit / 14 lessons | ELTE PPK<br>Sporttudományi Intézet |
| Aim:      | Acquiring knowledge of stress physiology that proves beyond any doubt the importance of individual stress planning. |                                     |                       |                                    |

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

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

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aim: | <p>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.</p> <p>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.</p> |
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| Code       | Lecturer                          | Title                                    | Credit                | Department                                         |
|------------|-----------------------------------|------------------------------------------|-----------------------|----------------------------------------------------|
| NDIPAVNM02 | <b>Prof. Dr. Ostojic Sergej</b>   | <b>Advanced Nutrition and Metabolism</b> | 1 credit / 14 lessons | PTE ETK<br>Fizioterápiás és Sporttudományi Intézet |
| Aim:       | Advanced Nutrition and Metabolism |                                          |                       |                                                    |

| Code     | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Title                               | Credit                | Department                                         |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------|----------------------------------------------------|
| FDIPIIS1 | <b>Dr. Prémusz Viktória</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Insights into scientometrics</b> | 1 credit / 14 lessons | PTE ETK<br>Fizioterápiás és Sporttudományi Intézet |
| Aim:     | <p>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.</p> |                                     |                       |                                                    |

| Code      | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Title                                           | Credit                 | Department                                                          |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------|---------------------------------------------------------------------|
| FDIP5JES1 | <b>Dr. Raposa L. Bence</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Statistical methods in research I.</b>       | 2 credits / 28 lessons | PTE ETK<br>Egészségtudományi Alapozó, Szülésznői és Védőnői Intézet |
| Purpose:  | <p>The aim of the 1st semester of Statistics is to provide theoretical and (computer) practical knowledge for the processing and evaluation of empirical data. Methods of scientific research. Experiment versus survey. Qualitative and quantitative data. Basics of probability calculus. Population and sample, sample selection. Descriptive statistics. Estimation and hypothesis testing. Estimation of confidence intervals. One- and two-sample procedures for expected value (sign tests, Mann-Whitney test, chi-square test, linear regression and correlation calculation, etc.). Using the SPSS statistical software package.</p> |                                                 |                        |                                                                     |
| Code      | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Title                                           | Credit                 | Department                                                          |
| FDIP5SEM1 | <b>Sélleyné dr. Gyuró Monika PhD.habil</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Scientific English: writing publications</b> | 1 credit / 14 lessons  | PTE ETK<br>Egészségbiztosítási Intézet                              |

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| 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. |
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| Code      | Lecturer                                                                                                                                                                                                                                | Title                                             | Credit                | Department                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------|-------------------------------------------------------------------------------|
| FDIP1VEZ2 | <b>Dr. Verzár Zsófia</b>                                                                                                                                                                                                                | <b>Invasive cardiological examination methods</b> | 1 credit / 14 lessons | PTE ETK<br>Sürgősségi,<br>Egészségpedagógiai és<br>Ápolástudományi<br>Intézet |
| Aim:      | Determining the suitability of invasive cardiological examination methods in everyday practical cardiology and research. Determining the sensitivity of the examinations, learning about the advantages and limitations of the methods. |                                                   |                       |                                                                               |

| Code     | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Title                                                                                                                                           | Credit                | Department                                 |
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| NDIPOBH1 | <b>Dr. Czimmer József</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>On the Border of Health and Disease I.: The Role of Low-Grade Inflammation in Aging and Metabolic, Digestive and Immune System Disorders</b> | 1 credit / 14 lessons | PTE KK<br>I. sz. Belgyógyászati<br>Klinika |
| Aim:     | Low-level inflammatory processes can be measured in various 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 comprehend the path to health and the complex preventive and therapeutic possibilities available. |                                                                                                                                                 |                       |                                            |

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

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

| Code      | Lecturer                                                                       | Title                                                                                 | Credit                | Department                                                |
|-----------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------|
| FDIP6STM1 | <b>Dr. Stocker Miklós</b>                                                      | <b>Social and economic impacts of international sport events organized in Hungary</b> | 1 credit / 14 lessons | Budapesti Corvinus Egyetem<br>Vezetéstudományi<br>Intézet |
| Aim:      | Social and economic impacts of international sport events organized in Hungary |                                                                                       |                       |                                                           |

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

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| 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. |
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| Code      | Lecturer                                                 | Title                                                          | Credit                | Department |
|-----------|----------------------------------------------------------|----------------------------------------------------------------|-----------------------|------------|
| FDIP4FIM1 | <b>Dr. Hegyi Gabriella</b>                               | <b>The role of complementary medicine in medical treatment</b> | 1 credit / 14 lessons | PTE ETK    |
| Aim:      | The role of complementary medicine in medical treatment. |                                                                |                       |            |

| Code       | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Title                                                             | Credit                | Department                                                                 |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------|
| FDIP6PEDH1 | <b>Dr. Bánfai-Csonka Henrietta</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Possibilities for examining and developing health literacy</b> | 1 credit / 14 lessons | PTE ETK<br>Sürgősségi,<br>Egészségpedagógiai és<br>Ápolástudományi Intézet |
| Aim:       | <p>Our level of health literacy have an impact on our health-related decisions and our own and society's health, as well as influence the health care system, 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 importance of health literacy, we will start to develop it, thereby creating a better healthcare system and a more livable, healthier environment. Health literacy has an impact on disease prevention, health promotion and the healthcare system, so we can expect greater progress in these areas as well, if we can increase society's level of health awareness.</p> <p>The aim of the course is to familiarize the PhD students 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 then they can learn development methods as well.</p> |                                                                   |                       |                                                                            |

| Code      | Lecturer                                                                                                                                                                                                                                                                     | Title                                                                      | Credit                | Department                                                                                 |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------|
| FDIP6CIE1 | <b>Dr. Verzár Zsófia</b><br><br><b>Dr. Bányai Dávid</b>                                                                                                                                                                                                                      | <b>Current issues of euthanasia, situation in Hungary and in the World</b> | 1 credit / 14 lessons | PTE ETK<br>Sürgősségi,<br>Egészségpedagógiai és<br>Ápolástudományi Intézet<br>*<br>PTE ETK |
| Aim:      | <p>1. Introduction, description of the situation in Hungary<br/>Ágnes Róza Balogh PhD<br/>PTE Faculty of Law, Department of Criminal Law, Doctoral School</p> <p>2. Summary of the international legal situation<br/>Dávid Bányai PhD<br/>PTE Faculty of Health Sciences</p> |                                                                            |                       |                                                                                            |

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|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Doctoral School of Health Sciences</p> <p>3. Description of the legal situation in Hungary<br/>István Ágoston habil PhD,<br/>PTE Faculty of Health Sciences Doctoral School of Health Sciences</p> <p>4. The relationship between euthanasia and churches in Hungary and International outlook<br/>Gusztáv Kovács Prof Rector Episcopal Theological College of Pécs<br/>Department of Human Dignity and Social Justice</p> <p>5. Ethical issues of euthanasia<br/>Judit Zeller habil PhD<br/>PTE Faculty of Law, Department of Constitutional Law, Doctoral School</p> <p>6. Communication issues<br/>Orsolya Máté habil PhD<br/>PTE Faculty of Health Sciences Doctoral School of Health Sciences</p> <p>7. How can we help from a medical perspective and in the field of care<br/>Dr. Zsófia Verzár MD Prof, Miklós Lukács PhD student<br/>PTE Faculty of Health Sciences Doctoral School of Health Sciences<br/>invited Ágnes Csikós MD Prof</p> |
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| Code    | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                   | Title                                                    | Credit                | Department                                         |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|----------------------------------------------------|
| FDIPLP1 | <b>Dr. Prémusz Viktória</b>                                                                                                                                                                                                                                                                                                                                                                                | <b>Licensing process for biomedical / human research</b> | 1 credit / 14 lessons | PTE ETK<br>Fizioterápiás és Sporttudományi Intézet |
| Aim:    | <p>The aim of the topic is to acquaint students with the process of ethical licensing in Hungary, with the operating guidelines for ethics committees evaluating medical-biological research.</p> <p>Review of documents and requirements required for the authorization procedure in connection with the authorization procedure for non-interventional examinations and interventional examinations.</p> |                                                          |                       |                                                    |

| Code      | Lecturer                                                                 | Title                                                                           | Credit                | Department                                         |
|-----------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------|----------------------------------------------------|
| NDIPNAT01 | <b>Dr. Ostojic Sergej</b>                                                | <b>Nutritional approaches to tackle chronic fatigue syndrome and long COVID</b> | 1 credit / 14 lessons | PTE ETK<br>Fizioterápiás és Sporttudományi Intézet |
| Aim:      | Nutritional approaches to tackle chronic fatigue syndrome and long COVID |                                                                                 |                       |                                                    |

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

|      |                                                                                                    |                                     |  |  |
|------|----------------------------------------------------------------------------------------------------|-------------------------------------|--|--|
|      |                                                                                                    | <b>Exercise is Medicine concept</b> |  |  |
| Aim: | Relationship between physical activity and large population diseases: Exercise is Medicine concept |                                     |  |  |

| Code       | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                             | Title                                                  | Credit                | Department                             |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------|----------------------------------------|
| FNDIPPIPM1 | <b>Dr. Lampek Kinga</b>                                                                                                                                                                                                                                                                                                                                                                                              | <b>Project proposal writing and Project management</b> | 1 credit / 14 lessons | PTE ETK<br>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                                                          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------|---------------------------------------------------------------------|
| FDIP5JES2 | <b>Dr. Raposa L. Bence</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Statistical methods in research II.</b> | 2 credit / 28 lessons | PTE ETK<br>Egészségtudományi Alapozó, Szülészeti és Védőnői Intézet |
| Aim:      | The course aims to consolidate the research skills of Ph.D. students in the practice and research of health care. The students will develop a general understanding of research as a means of professional development and advancement. This course provides the knowledge and skills required to carry out and evaluate mainly quantitative and qualitative research projects on the different areas of health care. Another goal that the students to gain essential skills in planning, organizing and evaluating scientific studies on health care. |                                            |                       |                                                                     |

| Code       | Lecturer                                                                                                                                              | Title                                                    | Credit                | Department                                |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|-------------------------------------------|
| FNDIP9LOS2 | <b>Dr. Lohner Szimonetta</b>                                                                                                                          | <b>Systematic reviews: collecting and combining data</b> | 1 credit / 14 lessons | PTE ÁOK<br>Orvosi Népegészségtani Intézet |
| Aim:       | Systematic review uses robust methods to reduce bias in the gathering, summarizing, presenting, interpreting, and reporting of the research evidence. |                                                          |                       |                                           |

| Code         | Lecturer                                                                                                                                                                                                                                                                                                                                                                                              | Title                           | Credit                | Department                             |
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| FDIP8SGYM101 | <b>Sélleyné Gyuró Mónika</b>                                                                                                                                                                                                                                                                                                                                                                          | <b>Academic Public Speaking</b> | 1 credit / 14 lessons | PTE ETK<br>Egészségbiztosítási 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.<br>The course also includes written communication with the publishing committee of the publishers. |                                 |                       |                                        |

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

| Code      | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Title                           | Credit                | Department                                                          |
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| FDIP6BOS1 | <b>Dr. Raposa László Bence</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Basics of Sportdietetics</b> | 1 credit / 14 lessons | PTE ETK<br>Egészségtudományi Alapozó, Szülésznői és Védőnői Intézet |
| Aim:      | <p>The " Basics of Sportdietetics I." is designed to provide a comprehensive and thorough insight into the nutritional needs of athletes and the principles involved. During the course, students will learn about the links between physical activity and nutrition and how these can be effectively put into practice to improve health 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 highlighting its practical relevance.</p> |                                 |                       |                                                                     |

| Code     | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Title                                                | Credit                 | Department                                         |
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| FDIPPPA1 | <b>Dr. Szentpéteri József</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Power Point - a key secret for thesis defense</b> | 2 credits / 28 lessons | PTE ÁOK<br>Transzdiszciplináris Kutatások Intézete |
| Aim:     | <p>The practical side of successful academic presentation and PhD defense is supported by the development of IT skills. The aim is to improve the presentation skills of the participants from a practical point of view, at skill level, in order to smoothly take over the technical barriers of expression during scientific lectures, PhD defense and professional careers. In the lectures and practices, we place special emphasis on the skill level development of the most commonly used softwares. We make content and form recommendations in line with current design trends, all distilled in a medical and health science style. Affected software: Power Point, OneDrive, MS Word, Mendeley, Endnote, Adobe Creative Suite.</p> |                                                      |                        |                                                    |

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

| Code | Lecturer | Title | Credit | Department |
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| FDIP6TPFQ1 | <b>Dr. Boncz Imre</b><br><br><b>Dr. Sántics-Kajos Luca</b>                                                                                                                                                                                                                                                                     | <b>Theoretical and practical foundations of quality-of-life assessments</b> | 1 credit / 14 lessons | PTE ETK<br>Egészségbiztosítási Intézet<br>*<br>PTE ETK<br>Egészségbiztosítási Intézet |
| Aim:       | The aim of the course is to provide a comprehensive overview of the theoretical and practical foundations of quality-of-life assessments.<br>During the course, doctoral students will be introduced to the theoretical background, methodology, practical relevance and possible applications of quality-of-life assessments. |                                                                             |                       |                                                                                       |

| Code     | Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Title                                                                                                                                | Credit                | Department                              |
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| NDIPOBH1 | <b>Dr. Czimmer József</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>On the Border of Health and Disease II.: Disorders of Gut-Brain Interactions: Basics of Functional Gastrointestinal Disorders</b> | 1 credit / 14 lessons | PTE KK<br>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 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. |                                                                                                                                      |                       |                                         |

## Detailed Course Descriptions and Schedules

The courses offered in the current semester, along with detailed descriptions, are available at:

[https://doktoriiskola.etk.pte.hu/doktori\\_kepzes/phd-kurzusok](https://doktoriiskola.etk.pte.hu/doktori_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

Programs 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                                         |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Program Nr. 1 / PR-1</b> | <b>FRONTIERS OF HEALTH SCIENCES</b>                                                                               | <b>Prof. Dr. Kovács, L. Gábor<br/>program leader</b>                        |
| E-1                         | The effects of social differences on the health care system                                                       | Dr. Betlehem, József<br>supervisor                                          |
| E-2                         | Role of simulated practical training in health care education                                                     | Dr. Betlehem, József<br>supervisor                                          |
| E-3                         | Characteristics of medical provision for various types of catastrophic events                                     | Dr. Betlehem, József<br>supervisor                                          |
| E-4                         | The context of health economics, quality assurance and performance monitoring in case of public health programmes | Dr. Boncz, Imre<br>supervisor,<br>Dr. Gulácsi, László<br>co-supervisor      |
| E-5                         | Financial questions of the health care system                                                                     | Dr. Boncz, Imre<br>supervisor,<br>Dr. Varga, Zoltán<br>co-supervisor        |
| E-7                         | Recreation - wellness - health condition                                                                          | Dr. Jeges, Sára<br>supervisor                                               |
| E-8                         | System of values - quality of life - health condition                                                             | Dr. Jeges, Sára<br>supervisor                                               |
| E-11                        | Fundamental questions in health care management                                                                   | Dr. Kovács, L.<br>Gábor supervisor,<br>Dr. Boncz, Imre co-<br>supervisor    |
| E-12                        | The health status of the population and social factors.                                                           | Dr. Lampek, Kinga<br>supervisor                                             |
| E-15                        | Effects of working in three-shift system on biorhythm.                                                            | Dr. Oláh, András<br>supervisor,<br>Dr. Ács, Pongrácz co-<br>supervisor      |
| E-16                        | Linguistic aspects of health sciences                                                                             | Dr. Rébék-Nagy,<br>Gábor supervisor,<br>Dr. Boronkai, Dóra<br>co-supervisor |

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| E-17 | Socializing effects of school and family on pupils' lifestyle                                                                                      | Dr. Rétsági,<br>Erzsébet supervisor                                        |
| E-18 | Appearance of health related values among primary and secondary school pupils                                                                      | Dr. Rétsági,<br>Erzsébet supervisor                                        |
| E-19 | Study of recreational activities among various age groups, with special interest in their physical activity                                        | Dr. Rétsági,<br>Erzsébet supervisor,<br>Dr. Ács, Pongrácz 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 parallel change of exertion ability | Dr. Wilhelm, Márta supervisor                                              |
| E-27 | Special situations in emergency care                                                                                                               | Dr. Betlehem, József supervisor<br>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,<br>Dr. Gerevich, József co-supervisor     |
| E-29 | Exercise induced muscle damage and adaptation mechanisms during long-term resistance training                                                      | Dr. Wilhelm, Márta supervisor,<br>Dr. Vácz, Márk co-supervisor             |
| E-30 | Neuromuscular adaptations to resistance training                                                                                                   | Dr. Wilhelm, Márta supervisor,<br>Dr. Vácz, Márk co-supervisor             |
| E-32 | The role of physical activity and sports in health improvement                                                                                     | Dr. Tóth, Ákos Levente supervisor                                          |
| E-33 | Health condition of Hungarian people with disabilities, and possible directions of development in terms of equal opportunities                     | Dr. Bódis, József supervisor,<br>Dr. Chronowski, Nóra co-supervisor        |
| E-35 | Integrative Medicine as a treatment for stress release of different origins                                                                        | Dr. Hegyi, Gabriella supervisor                                            |
| E-36 | Enhancement 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 protocols                                                                                          | Dr. Oláh, András supervisor                                                |

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| E-41 | Possibilities to improve nursing practice with respect to the international practice                                                                                                              | Dr. Oláh, András<br>supervisor                                                               |
| E-42 | Developement and implementation of electronic nursing documentation                                                                                                                               | Dr. Oláh, András<br>supervisor                                                               |
| E-43 | Psycho-neuro-immunology in clinical practice                                                                                                                                                      | Dr. Repa, Imre<br>supervisor                                                                 |
| E-44 | Disability and quality of life                                                                                                                                                                    | Dr. Pusztafalvi,<br>Henriette supervisor,<br>Dr. Csókási,<br>Krisztina co-<br>supervisor     |
| E-45 | Examination of the nonlinear distortion of the ear                                                                                                                                                | Dr. Pytel, József<br>supervisor,<br>Dr. Lujber, László<br>co-supervisor                      |
| E-46 | Examination and treatment of motion instability in neurological diseases                                                                                                                          | Dr. Nagy, Ferenc<br>supervisor,<br>Dr. Kovács, Norbert<br>co-supervisor                      |
| E-48 | Health science aspects of free flap breast reconstruction                                                                                                                                         | Dr. Kornya, László<br>supervisor                                                             |
| E-49 | Comparison of surgical suture materials                                                                                                                                                           | Dr. Kornya, László<br>supervisor                                                             |
| E-50 | Comparison of breast reconstruction surgeries                                                                                                                                                     | Dr. Kornya, László<br>supervisor                                                             |
| E-51 | Role of communication in the health care system                                                                                                                                                   | Dr. Pusztafalvi,<br>Henriette supervisor                                                     |
| E-56 | Social aspects of medical communication                                                                                                                                                           | Dr. Lampek, Kinga<br>supervisor,<br>Dr. Máté, Orsolya<br>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<br>supervisor, Dr. Tóth,<br>Ákos co-supervisor                               |
| E-58 | The aspects of patients' right and labor law in health care                                                                                                                                       | Dr. Boncz, Imre<br>supervisor,<br>Dr. Ágoston, István<br>co-supervisor                       |
| E-59 | The current issues of the health capacity regulation and the resource allocations                                                                                                                 | Dr. Boncz, Imre<br>supervisor,<br>Dr. Ágoston, István<br>co-supervisor                       |
| E-60 | The current questions and examination of the sex education in the educational institutions                                                                                                        | Dr. Pusztafalvi,<br>Henriette supervisor                                                     |
| E-61 | Historical epidemiology studies                                                                                                                                                                   | Dr. Pusztafalvi,<br>Henriette supervisor<br>Dr. Takács, Mária<br>Zsuzsanna co-<br>supervisor |
| E-62 | The effect of physical activity in different kind of neurodegenerative diseases: biomechanical and molecular biological studies                                                                   | Dr. Atlasz, Tamás<br>supervisor,<br>Dr. Vácz, Márk co-<br>supervisor                         |

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| 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,<br>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,<br>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,<br>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,<br>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,<br>Dr. Papp, Renáta co-supervisor       |
| E-73 | Patient rights, opportunities of patient rights enforcement in practice.                    | Dr. Endrei, Dóra supervisor,<br>Dr. Ágoston, István co-supervisor      |
| E-74 | Human resource aspects of health care system at policy and institutional level              | Dr. Endrei, Dóra supervisor,<br>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,<br>Dr. Boncz, Imre co-supervisor           |
| E-79 | Clinical and economic issues in health technology assesment                                 | Dr. Boncz, Imre supervisor,<br>Dr. Zemplényi, Antal co-supervisor      |
| E-80 | Research about the preferences of partner choice and the factors that influence it          | Dr. Brantmüller, Éva supervisor,<br>Dr. Pakai, Annamária co-supervisor |

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| E-81 | The Practice of analytic chemical methods in the personal identification                                                  | Dr. Márk, László supervisor,<br>Dr. Wiegand, Norbert co-supervisor       |
| E-82 | Recovery from perinatal loss – Bereavement support                                                                        | Dr. Lampek, Kinga supervisor, Dr. B. Erdős, Márta co-supervisor          |
| E-83 | The impact of migration on health care                                                                                    | Dr. Kobolka, István témavezető                                           |
| E-84 | The study of the correspondence of learning, learning outcomes and mental hygiene                                         | Dr. Deutsch, Krisztina supervisor                                        |
| E-85 | The study of the correspondence of sense of coherence, health behavior and health status in different occupational groups | Dr. Deutsch, Krisztina supervisor,<br>Dr. Kívés, Zsuzsanna co-supervisor |
| E-86 | Transformation of health sciences and science popularization in the digital age                                           | Dr. Csongor, Alexandra supervisor                                        |
| E-87 | Medical and Health Care Communication – Interdisciplinary approaches                                                      | Dr. Koppán, Ágnes supervisor                                             |
| E-88 | Interviewing strategies in the patient interview – language tools of assertive communication and empathy                  | Dr. Lepenye, Katalin supervisor                                          |
| E-89 | Functional-pragmatic analysis of encounters of health providers and patients                                              | Dr. Kőhalmi, Anikó supervisor,<br>Dr. Kráncz, Rita co-supervisor         |
| E-90 | The emergency and palliative care aspects of multimorbid or cancer patients                                               | Dr. Pozsgai, Éva supervisor                                              |
| E-91 | Impact of changes in the organisational structure of the Hungarian health care system on health institutions              | Dr. Balogh, Sándor supervisor,<br>Dr. Hegedűs, Mihály co-supervisor      |
| E-92 | Possibilities to improve nursing practice with respect to the international practice                                      | Dr. Oláh, András supervisor,<br>Dr. Zrínyi, Miklós co-supervisor         |
| E-93 | Mental illness and language use: diagnostic and therapeutic options                                                       | Dr. Kőhalmi, Anikó supervisor,<br>Dr. Herold, Róbert co-supervisor       |
| E-96 | Complex analyses of medical documentation                                                                                 | Dr. Fogarasi, Katalin supervisor,<br>Dr. Patonai, Zoltán co-supervisor   |
| E-97 | Narrative investigation of disease awareness                                                                              | Dr. Gyuró, Mónika supervisor                                             |
| E-98 | Use of virtual reality therapy in neurological patients                                                                   | Dr. Vajda, Zsolt supervisor,<br>Dr. Tollár, József co-supervisor         |

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| E-99  | Quality of life of disadvantaged groups in terms of health status                                                                                                       | Dr. Erdei, Renáta<br>supervisor                                                |
| E-100 | Forms of palliative care and opportunities for improvement                                                                                                              | Dr. Csikós, Ágnes<br>témavezető                                                |
| E-101 | End-of-life wishes and decisions                                                                                                                                        | Dr. Csikós, Ágnes<br>supervisor                                                |
| E-102 | The effect of nurses' awareness of infection control measures on patient and family education                                                                           | Dr. Kocsis, Béla<br>supervisor                                                 |
| E-103 | Examining the role of APRN in Hungarian and international context                                                                                                       | Dr. Oláh, András<br>supervisor,<br>Dr. Máté, Orsolya<br>co-supervisor          |
| E-104 | The significance and communication of prevention and public health programs                                                                                             | Dr. Máté, Orsolya<br>supervisor                                                |
| E-105 | Assertivity, violation management and multiculturalism among the medical communication                                                                                  | Dr. Máté, Orsolya<br>supervisor                                                |
| E-106 | Implementation of innovative technologies in health care                                                                                                                | Dr. Papp, Renáta<br>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<br>supervisor,<br>Dr. Máté, Orsolya<br>co-supervisor        |
| E-108 | Impact of SARS-COV-2 pandemic of GP care                                                                                                                                | Dr. Balogh, Sándor<br>supervisor                                               |
| E-111 | Examining generational characteristics in the field of health and sports sciences                                                                                       | Dr. Hideg, Gabriella<br>supervisor                                             |
| E-112 | Survey of health behaviour and lifestyle habits of international students in colleague education                                                                        | Dr. Raposa, László<br>Bence supervisor,<br>Dr. Zrínyi, Miklós<br>co-supervisor |
| E-113 | Investigation of the effectiveness of animal therapy in health care                                                                                                     | Dr. Tollár, József<br>supervisor,<br>Dr. Kovács, Árpád<br>co-supervisor        |
| E-114 | Application of virtual reality, robotics and modern technological research / therapies in medicine                                                                      | Dr. Tollár, József<br>supervisor                                               |
| E-115 | Language learning strategies, autonomous language learning and effective teaching techniques in languages for healthcare purposes.                                      | Dr. Hild,<br>Gabriella supervisor                                              |
| E-117 | Opportunities and challenges of first aid education and socialization                                                                                                   | Dr. Bánfai, Bálint<br>supervisor                                               |
| E-118 | The added value of integrative medicine for evidence-based medicine                                                                                                     | Dr. Szőke, Henrik<br>supervisor                                                |
| E-119 | Evolution and evaluation of the health innovation ecosystem in the international and domestic environment                                                               | Dr. Zrínyi, Miklós<br>supervisor,<br>Dr. Lampek, Kinga<br>co-supervisor        |

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| E-120 | Reform and Sustaining of Superannuation System in Hungary                                                                                                                     | Dr. Varga, Zoltán<br>supervisor                                                   |
| E-121 | The role of the advanced practice nurse (APN) in the community of practice team in each client pathway                                                                        | Dr. Siket, Adrienn<br>supervisor                                                  |
| E-122 | Redefining nursing skills in AI and robotisation, with a particular focus on conditions requiring long-term care.                                                             | Dr. Siket, Adrienn<br>supervisor                                                  |
| E-124 | Microbiological examination of nosocomial infections and their association with the use of nursing devices                                                                    | Dr. Takács,<br>Krisztina supervisor                                               |
| E-125 | New directions of health promotion                                                                                                                                            | Dr. Vitrai, József<br>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<br>supervisor                                                   |
| E-127 | Investigation of the extent of root resorption subjected to lingual and buccal jiggling movements                                                                             | Dr. Frank, Dorottya<br>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<br>supervisor                                                   |
| E-129 | Short- and long-term effects of COVID-19 infection on taste perception and food preference                                                                                    | Dr. Raposa, László<br>Bence supervisor                                            |
| E-130 | Public health aspects of iron metabolism                                                                                                                                      | Dr. Egyed, Miklós<br>supervisor                                                   |
| E-131 | Efficiency of health insurance systems based on real-world & big data                                                                                                         | Dr. Boncz, Imre<br>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<br>supervisor,<br>Dr. Csenki, Laura<br>co-supervisor         |
| E-135 | Health prevention in digital age                                                                                                                                              | Dr. Figler, Mária<br>supervisor<br>Dr. Szabó, Zsolt<br>Roland co-<br>supervisor   |
| E-136 | The role of health literacy in the effectiveness of nurse led patient education program                                                                                       | Dr. Betlehem, József<br>supervisor                                                |
| E-139 | Preservation of mental health in changing workplace communities                                                                                                               | Dr. Csima, Melinda<br>supervisor,<br>Dr. Sipos Dávid co-<br>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<br>supervisor                                                   |
| E-141 | Supportive communication in health science texts                                                                                                                              | Dr. Mány, Dániel<br>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<br>supervisor,<br>Dr. Pusztafalvi<br>Henriette<br>co-supervisor |

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| 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<br>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                                                     |
| <b>Program Nr. 2 / PR-2</b> | <b>CARDIOVASCULAR HEALTH SCIENCE</b>                                                                                                                                       | <b>Prof. Dr. Verzár, Zsófia program leader</b>                                    |
| K-1                         | Preventive methods for cardio-, and cerebrovascular diseases                                                                                                               | Dr. Cziráki, Attila supervisor,<br>Dr. Verzár, Zsófia co-supervisor               |
| K-3                         | Effects of meteorological factors on cardio-, and cerebrovascular diseases                                                                                                 | Dr. Verzár, Zsófia supervisor,<br>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-12                        | Prevention methods for vascular and cardiovascular diseases                                                                                                                | Dr. Arató, Endre supervisor                                                       |
| K-13                        | Individual and community factors of health status and health inequalities                                                                                                  | Dr. Füzesi, Zsuzsanna                                                             |

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|                                     |                                                                                                                                                 | supervisor                                                                        |
| K-14                                | The importance of the effects of co-morbidities in acute patient care                                                                           | Dr. Oláh, Tibor<br>supervisor,<br>Dr. Betlehem, József<br>co-supervisor           |
| K-15                                | Analysis of publicly and privately financed health care services                                                                                | Dr. Sebestyén,<br>Andor supervisor                                                |
| K-16                                | Genetical, gene expressional background connection with lifestyle and occupational factors in cardiovascular diseases                           | Dr. Verzár, Zsófia<br>supervisor                                                  |
| K-17                                | The role of arterial stiffness in cardiovascular prevention and risk evaluation                                                                 | Dr. Arató, Endre<br>supervisor                                                    |
| K-18                                | Monitoring of cardiovascular effects of legal and illegal drugs focusing on designer drugs                                                      | Dr. Verzár, Zsófia<br>supervisor,<br>Dr. Pakai,<br>Annamária co-<br>supervisor    |
| K-19                                | Quality of life measurement and its implication in developing modern therapeutic strategies in non ST elevation myocardial infarction           | Dr. Verzár, Zsófia<br>supervisor                                                  |
| K-20                                | Care and primary and secondary prevention of cardio-cerebrovascular diseases                                                                    | Dr. Balogh, Sándor<br>supervisor,<br>Dr. Sipeky, Csilla<br>co-supervisor          |
| K-21                                | The role of endovascular interventions in the improvement of the quality of life in patients with vascular disease                              | Dr. Vajda, Zsolt<br>supervisor,<br>Dr. Nagy, Ferenc<br>co-supervisor              |
| K-22                                | Improving quality of life in patients with neurovascular and peripheral vascular diseases                                                       | Dr. Vajda, Zsolt<br>supervisor,<br>Dr. Nagy, Ferenc<br>co-supervisor              |
| K-23                                | Medical, legal and social aspects of end-of-life decisions                                                                                      | Dr. Verzár, Zsófia<br>supervisor,<br>Dr. Dávid, Bányai<br>co-supervisor           |
| <b>Program<br/>Nr. 3 /<br/>PR-3</b> | <b>TREATMENT OF LOCOMOTOR DISORDERS</b>                                                                                                         | <b>Prof. Dr. Kráncz,<br/>János<br/>program leader</b>                             |
| M-1                                 | Prevention, possibilities of care and effects on quality of life of congenital deformity of lower limbs                                         | Dr. Kráncz, János<br>supervisor,<br>Dr. Pusztalvi,<br>Henriette co-<br>supervisor |
| M-2                                 | Connection between obesity and the clinical picture of locomotive disorders, and their possible treatments                                      | Dr. Kráncz, János<br>supervisor,<br>Dr. Hock, Márta co-<br>supervisor             |
| M-4                                 | Biomechanical, biochemical, epidemiological and pathophysiological aspects of prevention of infantile and adult spine diseases                  | Dr. Kráncz, János<br>supervisor                                                   |
| M-5                                 | Possible primary, secondary and tertiary prevention of osteoporosis in healthy people and in diseases of organs responsible for bone metabolism | Dr. Kráncz, János<br>supervisor                                                   |

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| M-6  | Examination of muscle- and trunk balance and body composition in the age group of 10-25-year-olds, and the primary prevention of osteoporosis | Dr. Kráncz, János supervisor                                       |
| M-7  | Analysis of the shoulder's kinesiology, biomechanics and pathology with ZEBRIS CMS-HS ultrasound-based spatial motion monitoring              | Dr. Kráncz, János supervisor                                       |
| M-8  | Examination of factors affecting the efficiency of radiosynoviorthesis                                                                        | Dr. Szentesi, Margit supervisor                                    |
| M-10 | Connection between the biological risk, the local activity of joints, and the efficiency of radiosynoviorthesis                               | Dr. Szentesi, Margit supervisor, Dr. 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 rheumatological diseases                                                                                | Dr. Langmár, Zoltán supervisor                                     |
| M-13 | Role of the ultrasound examination in the diagnosis prior to radiosynoviorthesis and in evaluating the efficacy of treatment                  | Dr. Szentesi, Margit supervisor                                    |
| M-14 | The role of biological therapy in treatment of inflammatory rheumatologic disease                                                             | Dr. Szentesi, Margit supervisor                                    |
| M-15 | Biological therapy as a revolutionary new way to improve clinical symptoms and quality of life of children with JIA                           | Dr. Szentesi, Margit supervisor                                    |
| M-16 | Epidemiology of hip fractures                                                                                                                 | Dr. Sebestyén, Andor supervisor                                    |
| M-17 | Relationship between functional asymmetry and injuries among sportsmen                                                                        | Dr. Wilhelm, Márta supervisor, Dr. Vácz, Márk co-supervisor        |
| M-18 | Aspects of thyroid disease in health sciences, with a focus on pathological mutation, prevention and treatment of organs of locomotion        | Dr. Gáti, István supervisor                                        |
| M-19 | Aspects of prostate tumours in health sciences, with a focus on multimuscular changes, their prevention and treatment                         | Dr. Gáti, István supervisor                                        |
| M-20 | Evaluation of weight shifting abilities in patients with stroke                                                                               | Dr. Kráncz, János supervisor                                       |
| M-22 | The use of the climbing wall by the children's rehabilitation                                                                                 | Dr. Kráncz, János supervisor, Dr. Járomi, Melinda co-supervisor    |
| M-23 | Impact of movement disorders on quality of life                                                                                               | Dr. Kovács, Norbert supervisor                                     |
| M-24 | Effects of modern technical devices and sedentary lifestyle on the neuromuscular system                                                       | Dr. Császár, Gabriella supervisor                                  |
| 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    |

| <b>Program<br/>Nr. 4 /<br/>PR-4</b> | <b>PERINATAL HEALTH SCIENCE</b>                                                                                                                   | <b>Prof. Dr. Bódis,<br/>József<br/>program leader</b>                             |
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| P-2                                 | Epidemiology of congenital anomalies                                                                                                              | Dr. Sándor, János<br>supervisor                                                   |
| P-3                                 | Low birthweight: epidemiological, sociological, pathophysiological and clinical<br>consideration                                                  | Dr. Bódis, József<br>supervisor                                                   |
| P-4                                 | The importance of low birthweight in the development of adult diseases                                                                            | Dr. Bódis, József<br>supervisor                                                   |
| P-5                                 | Modern aspects of infants' feeding                                                                                                                | Dr. Bódis, József<br>supervisor                                                   |
| P-6                                 | Water and electrolyte metabolism in the neonate: renal and endocrine regulation                                                                   | Dr. Bódis, József<br>supervisor                                                   |
| P-7                                 | Primary and secondary prevention of perinatal hypoxic brain injury (epidemiology,<br>neurohabilitation, early developmental programs)             | Dr. Bódis, József<br>supervisor                                                   |
| P-8                                 | The importance of smoking in perinatal, infant and childhood morbidities                                                                          | Dr. Bódis, József<br>supervisor                                                   |
| P-9                                 | Clinical significance of hormones derived from adipocyte and skeletal tissues                                                                     | Dr. Bódis, József<br>supervisor                                                   |
| P-10                                | The importance of novel hormones, hormone-like substances in the perinatal<br>adaptation                                                          | Dr. Bódis, József<br>supervisor                                                   |
| P-11                                | Correlations among vitamin D supply, circulating forms of parathormone and serum<br>protein fractions in patients with renal failure              | Dr. Toldy, Erzsébet<br>supervisor,<br>Dr. Kálmán,<br>Bernadette co-<br>supervisor |
| P-12                                | Risk of the mechanism behind accelerated arteriosclerosis in case of patients with<br>uremic hemodialysis                                         | Dr. Csiky, Botond<br>supervisor                                                   |
| P-13                                | Understanding the complex physiological and psychological changes in children with<br>cow milk protein allergy                                    | Dr. Tóth, Gergely<br>Péter supervisor                                             |
| P-15                                | Quality of life of children with hydrocephalus and ventriculoperitoneal shunt                                                                     | Dr. Hollódy, Katalin<br>supervisor                                                |
| P-16                                | The importance of understanding fetal competencies in the prenatal period for<br>Mother-Infant relationship and communication                     | Dr. Zelena, András<br>supervisor                                                  |
| <b>Program<br/>Nr. 5 /<br/>PR-5</b> | <b>HUMAN REPRODUCTION</b>                                                                                                                         | <b>Prof. Dr. Bódis,<br/>József<br/>program leader</b>                             |
| R-1                                 | The effects of maternal illnesses and pharmacological therapies on pregnancy<br>outcome                                                           | Dr. Ács, Nándor<br>supervisor                                                     |
| R-2                                 | Suicides, and suicide attempts in Hungary                                                                                                         | Dr. Döme, Péter<br>supervisor                                                     |
| R-3                                 | Short- and long-term consequences of obstetric and gynecological interventions on<br>life-style, and the possibilities to influence these effects | Dr. Bódis, József<br>supervisor,<br>Dr. Koppán, Miklós<br>co-supervisor           |

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| 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,<br>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,<br>Dr. Hock, Márta co-supervisor    |
| R-8  | Phytoestrogens, hormon replacement, life-style and dietetic customs in peri- and postmenopause                                                                                                                               | Dr. Garai, János supervisor<br>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,<br>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,<br>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,<br>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,<br>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,<br>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<br>Gábor supervisor,<br>Dr. Kornya, László<br>co-supervisor     |
| R-26 | Demographic factors influence the occurrence of fetal malformations                                                                 | Dr. Veszprémi, Béla<br>supervisor                                               |
| R-27 | Pre and Postnatal Quality of Life and Fear of Childbirth                                                                            | Dr. Várnagy, Ákos<br>supervisor,<br>Dr. Varga, Katalin<br>co-supervisor         |
| R-28 | Biochemical and biological analysis of the peritoneal fluid in ovarian hyperstimulation syndrome (OHSS)                             | Dr. Farkas, Bálint<br>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<br>supervisor,<br>Dr. Surányi, Andrea<br>co-supervisor        |
| R-30 | Child sexual abuse in Szabolcs-Szatmár-Bereg Country in Hungary                                                                     | Dr. Csorba, Roland<br>supervisor                                                |
| R-31 | Prevalence and treatment options for muscle, bone and joint problems during pregnancy or delivery and after birth                   | Dr. Hock, Márta<br>supervisor                                                   |
| R-32 | Vaginal birth after cesarean section                                                                                                | Dr. Veszprémi, Béla<br>supervisor                                               |
| R-33 | Quality of life of pregnant women in terms of health status and health behavior                                                     | Dr. Erdei, Renáta<br>supervisor                                                 |
| R-34 | Investigating the non-surgical and the surgical treatment of pelvic organ prolapse and female urinary incontinence                  | Dr. Farkas, Bálint<br>supervisor,<br>Dr. Németh, Zoltán<br>co-supervisor        |
| R-35 | Morphological analysis of cellular elements involved in reproduction in pathological conditions                                     | Dr. Kovács, Kálmán<br>supervisor,<br>Dr. Nagy, Bernadett<br>co-supervisor       |
| R-36 | Regional differences in infertility care by socio-demographic aspects                                                               | Dr. Kovács, Kálmán<br>supervisor,<br>Dr. Prémusz,<br>Viktória co-<br>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<br>supervisor                                                |
| R-39 | Increasing the efficiency of in vitro fertilization (IVF) laboratory workflows and procedures                                       | Dr. Bódis, József<br>supervisor<br>Dr. Kovács, Kálmán<br>co-supervisor          |
| R-40 | Medical diagnosis, medical and legal aspects of child sexual abuse                                                                  | Dr. Csorba, Roland<br>supervisor                                                |
| R-41 | Uterine transplantation                                                                                                             | Dr. Farkas, Bálint<br>supervisor, Dr.<br>Fazekas, Gábor co-<br>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<br>Dr. Mauchart, Péter co-supervisor  |
| R-44                        | The evaluation of various factors influencing the efficacy of frozen embryo transfer treatments                   | Dr. Péter, Kovács supervisor<br>Dr. Kálmán, Kovács co-supervisor    |
| R-45                        | Potential of telemedical home monitoring in obstetrical practice                                                  | Dr. Bódis, József supervisor<br>Dr. Török, Miklós co-supervisor     |
| <b>Program Nr. 6 / PR-6</b> | <b>ONCOLOGY - HEALTH SCIENCES</b>                                                                                 | <b>Prof. Dr. Kiss, István program leader</b>                        |
| <b>PR-6/1</b>               | <b>PREVENTIVE ONCOLOGY Subprogram</b>                                                                             | <b>Prof. Dr. Kiss, István subprogram leader</b>                     |
| O-3                         | Efficiency of the most modern methods in radiation therapy in the patients of University of Pécs, Medical School  | Dr. Mangel, László supervisor,<br>Dr. Boronkai, Árpád co-supervisor |
| O-4                         | Historical demography of Hungary                                                                                  | Dr. Kiss, István supervisor                                         |
| O-5                         | Environmental carcinogenesis                                                                                      | Dr. Kiss, István supervisor                                         |
| O-6                         | Nutrition and cancer                                                                                              | Dr. Kiss, István supervisor                                         |
| O-7                         | Molecular epidemiology of cancer                                                                                  | Dr. Kiss, István supervisor,<br>Dr. Jung, János co-supervisor       |
| O-8                         | Public health problems and programs with respects to helth insurance and health economy                           | Dr. Boncz, Imre supervisor,<br>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 supervisor                                         |
| O-14                        | Chemoprevention of cancer                                                                                         | Dr. Kiss, István supervisor                                         |
| O-17                        | Alternative ways in cancer prevention                                                                             | Dr. Kiss, István supervisor                                         |
| O-21                        | Analysis of factors improving the diagnosing, perioperative and oncologic treatment of patients with colon cancer | Dr. Oláh, Tibor supervisor,<br>Dr. Boronkai, Árpád co-supervisor    |
| O-22                        | Role of Micro RNAs in carcinogenesis and prevention                                                               | Dr. Kiss, István supervisor                                         |

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| O-23 | Extended surgeries of head and neck cancers, and their surgical reconstructions                                       | Dr. Kásler, Miklós<br>supervisor                                                 |
| O-24 | Radiochemotherapy of head and neck cancer                                                                             | Dr. Kásler, Miklós<br>supervisor                                                 |
| O-25 | Laser surgery of head and neck cancer                                                                                 | Dr. Kásler, Miklós<br>supervisor                                                 |
| O-26 | Practice and opportunities of prevention in the General Practitioners' routine                                        | Dr. Balogh, Sándor<br>supervisor                                                 |
| O-30 | Nutritional status and dietary habits of homeless people                                                              | Dr. Rákossy, Zsuzsa<br>supervisor                                                |
| O-32 | Evolution of inhaled drug delivery                                                                                    | Dr. Elekes, Krisztián<br>supervisor                                              |
| O-33 | Rehabilitation in Cancer Care                                                                                         | Dr. Szalai, Márta<br>supervisor                                                  |
| O-34 | Molecular epidemiological and epigenetical examination of artificial food colourants in animal experiment test system | Dr. Kiss, István<br>supervisor,<br>Dr. Figler, Mária co-<br>supervisor           |
| O-35 | Expression and Function of Erythropoietin Receptor (EpoR) Variant Forms in Human Breast Cancer                        | Dr. Rákossy, Zsuzsa<br>supervisor                                                |
| O-36 | Multidisciplinary teamwork in hospice-palliative care                                                                 | Dr. Csikós, Ágnes<br>supervisor                                                  |
| O-37 | Diagnostic and treatment of malignant tumors                                                                          | Dr. Kásler, Miklós<br>supervisor                                                 |
| O-38 | Assesment of Medical Waste Management Practice: A Case Study                                                          | Dr. Kiss, István<br>supervisor,<br>Dr. Tibold, Antal<br>co-supervisor            |
| O-39 | Molecular epidemiological examination of food additives and plant-origin bioactive substances                         | Dr. Varjas, Tímea<br>supervisor                                                  |
| O-40 | Investigation of predictive biomarkers in tumors                                                                      | Dr. Bellyei,<br>Szabolcs supervisor                                              |
| O-41 | Diagnosis and treatment of solid abdominal malignancies and actualities in the field of organ transplantation         | Dr. Káposztás, Zsolt<br>supervisor<br>Dr. Biró, Adrienn<br>co-supervisor         |
| O-42 | Microbiom composition and the pathogenesis of colorectal cancer patients                                              | Dr. Raposa, László<br>Bence supervisor,<br>Dr. Káposztás, Zsolt<br>co-supervisor |
| O-44 | Surgical treatment of Thoracic Disorders                                                                              | Dr. Szántó, Zsolt<br>supervisor                                                  |
| O-45 | Public health implications of myeloproliferative neoplasms                                                            | Dr. Egyed, Miklós<br>supervisor                                                  |
| O-46 | The effect of early, intensive mobilization in the prevention of complications after acute abdominal surgeries        | Dr. Biró, Adrienn<br>supervisor,<br>Dr. Tollár, József<br>co-supervisor          |

| <b>PR-6/2</b> | <b>DIAGNOSTIC MEDICAL IMAGING</b><br>Subprogram                                                                               | <b>Prof. Dr. Bogner,<br/>Péter</b><br><b>subprogram leader</b>                  |
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| O-2-5         | Non-invasive examination of the cardiovascular system – CT, MR, angiography                                                   | Dr. Kovács, Árpád<br>supervisor,<br>Dr. Bajzik, Gábor<br>co-supervisor          |
| O-2-6         | Development of CT and MR guided diagnostic and therapeutic interventional procedures                                          | Dr. Repa, Imre<br>supervisor                                                    |
| O-2-7         | Application of modern image processing methods in diagnostic imaging and radiotherapy                                         | Dr. Repa, Imre<br>supervisor,<br>Dr. Kovács, Árpád<br>co-supervisor             |
| O-2-8         | Significance of molecular and multimodality imaging in the diagnosis, prognosis and follow up of therapy in lymphoma patients | Dr. Ritter, Zsombor<br>supervisor,<br>Dr. Alizadeh<br>Hussain co-<br>supervisor |
| O-2-10        | The integration of functional cross-sectional imaging in 3D conformal radiation therapy of brain tumors                       | Dr. Kovács, Árpád<br>supervisor                                                 |
| O-2-12        | Experimental and clinical applications of quantitative MR imaging techniques                                                  | Dr. Repa, Imre<br>supervisor,<br>Dr. Bajzik, Gábor<br>co-supervisor             |
| O-2-13        | Modern imaging techniques, the role of CT/MR imaging in the detection of breast cancer                                        | Dr. Repa, Imre<br>supervisor,<br>Dr. Bajzik, Gábor<br>co-supervisor             |
| O-2-14        | Mass spectrometry analysis of endocrine metabolom system                                                                      | Dr. Koppán, Miklós<br>supervisor, Dr. Márk,<br>László co-supervisor             |
| O-2-15        | Use of imaging methods based on mass spectrometry in health sciences                                                          | Dr. Márk, László<br>supervisor                                                  |
| O-2-16        | Mapping and monitoring of xenobiotics induced molecular changes by imaging technics                                           | Dr. Pirger, Zsolt<br>supervisor                                                 |
| O-2-17        | Application of modern imaging methods in the field of reconstruction, aesthetic and plastic surgery                           | Dr. Bajzik, Gábor<br>supervisor,<br>Dr. Ferenczy, József<br>co-supervisor       |
| O-2-19        | Improvement of the quality of life in epileptic and stroke patients using postprocessing methods in neuroradiology            | Dr. Vajda, Zsolt<br>supervisor,<br>Dr. Nagy, Ferenc<br>co-supervisor            |
| O-2-20        | Application of multimodality imaging diagnostic systems in clinical practice                                                  | Dr. Kovács, Árpád<br>supervisor,<br>Dr. Repa, Imre co-<br>supervisor            |
| O-2-21        | The role of 3D imaging in oncology pathways                                                                                   | Dr. Kovács, Árpád<br>supervisor,<br>Dr. Repa, Imre co-<br>supervisor            |
| O-2-22        | PET/CT and PET/MR based treatment modalities in the modern oncology                                                           | Dr. Kovács, Árpád<br>supervisor,<br>Dr. Cselik, Zsolt co-<br>supervisor         |

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| O-2-23                              | The importance of hybride imaging in receptor scintigraphies                                                                                           | Dr. Ritter, Zsolt<br>supervisor                                             |
| O-2-24                              | High dose radiotherapy procedures requiring precision, multimodal imaging                                                                              | Dr. Kovács, Árpád<br>supervisor,<br>Dr. Lakosi, Ferenc<br>co-supervisor     |
| O-2-25                              | Investigation of mechanical changes in the brain by transcranial doppler (TDC) and radiological imaging                                                | Dr. Vajda, Zsolt<br>supervisor,<br>Dr. Tollár, József<br>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<br>supervisor,<br>Dr. Tollár, József<br>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<br>supervisor,<br>Dr. Tollár, József<br>co-supervisor      |
| O-2-28                              | The use of diffusion, perfusion and functional imaging in extracranial or intracranial regions                                                         | Dr. Kovács, Árpád<br>supervisor,<br>Dr Nagy, Szilvia<br>Anett co-supervisor |
| O-2-29                              | Examination of dizziness and headaches using imaging studies                                                                                           | Dr. Tollár, József<br>supervisor                                            |
| O-2-30                              | Modern imaging techniques in the field of nuclear medicine                                                                                             | Dr. Ritter Zsombor<br>témavezető,<br>Dr. Sipos Dávid<br>társtémavezető      |
| O-2-31                              | The role of molecular imaging techniques in the diagnostic evaluation and therapeutic planning of solid tumors                                         | Dr. Ritter, Zsombor<br>supervisor                                           |
| O-2-32                              | Multimodal, molecular imaging for the assessment of myocardial perfusion and viability                                                                 | Dr. Ritter, Zsombor<br>supervisor                                           |
| <b>PR-6/3</b>                       | <b>GASTROENTEROLOGICAL DISEASES<br/>Subprogram</b>                                                                                                     | <b>Prof. Dr. Döbrönte,<br/>Zoltán<br/>subprogram leader</b>                 |
| O-3-1                               | Gastroenterological endoscopic diagnostic and therapeutic procedures                                                                                   | Dr. Döbrönte,<br>Zoltán supervisor                                          |
| O-3-3                               | The role of the clinical laboratory in the primary and secondary prevention of diabetes mellitus                                                       | Dr. Kovács, L.<br>Gábor supervisor,<br>Dr. Fodor, Lajos co-<br>supervisor   |
| O-3-13                              | Significance of monitoring during endoscopy with special regard to the sedoanalgesic premedication                                                     | Dr. Döbrönte,<br>Zoltán supervisor                                          |
| O-3-14                              | Risk factors for endoscopic retrograde cholangiopancreatography (ERCP) related acute pancreatitis and effectiveness of the pharmacological prophylaxis | Dr. Döbrönte,<br>Zoltán supervisor                                          |
| O-3-15                              | The role of the microbiome in the development and maintenance of chronic diseases                                                                      | Dr. Rajnics, Péter<br>supervisor                                            |
| <b>Program<br/>Nr. 7 /<br/>PR-7</b> | <b>SPORT and HEALTH SCIENCES</b>                                                                                                                       | <b>Dr. Rétsági,<br/>Erzsébet<br/>program leader</b>                         |

|      |                                                                                                                                                                                             | <b>Dr. Ács, Pongrác<br/>co-program leader</b>                          |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 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,<br>Dr. Makai, Alexandra co-supervisor  |
| S-5  | Development of non invasive methods to measure cardiovascular function                                                                                                                      | Dr. Karsai, István supervisor,<br>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 Theory - to be in the ZONE - the State and the Possibility of Measuring within Elite and Recreational Sports                                                            | Dr. Balogh, László supervisor,<br>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,<br>Dr. Győri, Ferenc co-supervisor   |
| S-10 | Philosophical, Content and Methodological Basis of Educating to Recreation in the Physical Education                                                                                        | Dr. Rétsági, Erzsébet supervisor,<br>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,<br>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,<br>Dr. Melczér, Csaba co-supervisor      |
| S-20 | The martial arts as a complex educational systems                                                                                                                                           | Dr. Kovács, Antal supervisor                                           |

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|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 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,<br>Dr. Ács, Pongrácz 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,<br>Dr. Ács, Pongrácz 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,<br>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,<br>Dr. Ács, Pongrácz 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,<br>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,<br>Dr. Rátgéber László co-supervisor  |
| S-38 | The role of team sports in the development of a physically active lifestyle                                                                                         | Dr. Filó, Csilla supervisor                                           |

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|------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 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,<br>Dr. Karsai, István co-supervisor      |
| S-42 | Investigation of biomechanical and cognitive changes under varying intensity load                                                       | Dr. Tollár, József supervisor,<br>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, Pongrácz supervisor,<br>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,<br>Dr. Makai, Alexandra cosupervisor |
| S-50 | Special and alternative exercise programs and women's health                                                                            | Dr. Hock, Márta supervisor,<br>Dr. Prémusz, Viktória co-supervisor      |
| S-51 | Women's health and physical activity                                                                                                    | Dr. Hock, Márta supervisor,<br>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<br>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<br>Dr. Tardi, Péter                     |

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|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|                                      |                                                                                                                                                                                              | 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                                       |
| <b>Program<br/>Nr. 8. /<br/>PR-8</b> | <b>FOOD SCIENCES, NUTRITION, DIETETICS and HYDRATION</b>                                                                                                                                     | <b>Prof. Dr. Figler<br/>Mária<br/>program leader</b>                |
| 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,<br>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,<br>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,<br>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<br>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                                   |

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|------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 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,<br>Dr. Pusztafalvi, Henriette co-supervisor       |
| T-19 | Quality of life study in nutrition related diseases                                                                | Dr. Polyák, Éva supervisor,<br>Dr. Szabó, Éva co-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, Andrea supervisor,<br>Dr. Stromájer-Rácz, Tímea co-supervisor |
| T-24 | The effects of nutrition on gut microbiome                                                                         | Dr. Polyák, Éva supervisor                                                    |
| T-25 | Investigation of fruits and consumption habits                                                                     | Dr. Kisbenedek, Andrea supervisor,<br>Dr. Gerencsér, Gellért co-supervisor    |
| T-26 | Eating habits and lifestyle of students in public education                                                        | Dr. Kisbenedek, 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<br>Dr. Kőrösi, László co-supervisor                 |
| T-30 | Nutritional role of grape plant                                                                                    | Dr. Szabó, Éva supervisor<br>Dr. Kőrösi, László co-supervisor                 |
| T-31 | Manipulating the gut microbiota in different diseases                                                              | Dr. Polyák Éva supervisor<br>Dr. Figler Mária co-supervisor                   |
| T-32 | The role of carbohydrate maldigestion and malabsorption in the development of functional bowel disorders           | Dr. Czimmer József supervisor                                                 |
| T-34 | New examination methods for the exploration of the link between proprioceptive impairment and prediabetes/diabetes | Dr. Sonkodi, Balázs supervisor                                                |

### III. Credit Allocation

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

## IV. Study Plan

|                    | Course Code  | Name of Course                                                                                                    | Lecturer                              | Hours  |          | Credit   |
|--------------------|--------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------|----------|----------|
|                    |              |                                                                                                                   |                                       | Theory | Practice |          |
| <b>1. Semester</b> |              |                                                                                                                   |                                       |        |          |          |
| <b>Mandatory</b>   | FDIP1BOJ1    | Fundaments of research in health sciences                                                                         | Prof. Dr. Bódis József                | 14     | 0        | <b>1</b> |
|                    | FFDIP4BOI2   | Fundaments of finances in health care                                                                             | Prof. Dr. Boncz Imre                  | 28     | 0        | <b>2</b> |
|                    | FDIP5JUK1    | Epidemiology I.                                                                                                   | Dr. Kívés Zsuzsanna                   | 14     | 0        | <b>1</b> |
|                    | FDIP5JES1    | Statistical methods in research I.                                                                                | Dr. Raposa L. Bence                   | 14     | 14       | <b>2</b> |
| <b>Optional</b>    | FDIP5SEM1    | Scientific English: writing publications                                                                          | Sélleyné Dr. Gyuró Mónika             | 14     | 0        | <b>1</b> |
|                    | FDIP9LOS1    | First steps of conducting a systematic review                                                                     | Dr. Lohner Szimonetta                 | 14     | 0        | <b>1</b> |
| <b>2. Semester</b> |              |                                                                                                                   |                                       |        |          |          |
| <b>Mandatory</b>   | FDIP5JES2    | Statistical methods in research II.                                                                               | Dr. Raposa L. Bence                   | 14     | 14       | <b>2</b> |
|                    | FDIP4BOI2    | Methodological questions of economic analyses in health care                                                      | Prof. Dr. Boncz Imre                  | 28     | 0        | <b>2</b> |
|                    | FDIP5SAJ1    | Epidemiology II.                                                                                                  | Dr. Kívés Zsuzsanna                   | 14     | 0        | <b>1</b> |
| <b>Optional</b>    | FDIP8SGYM101 | Academic Public Speaking                                                                                          | Sélleyné Dr. Gyuró Mónika             | 14     | 0        | <b>1</b> |
|                    | FNDIP9LOS2   | Systematic reviews: collecting and combining data                                                                 | Dr. Lohner Szimonetta                 | 14     | 0        | <b>1</b> |
|                    | NDIPAVNM02   | Advanced Nutrition and Metabolism                                                                                 | Prof. Sergej M. Ostojic               | 14     | 0        | <b>1</b> |
| <b>3. Semester</b> |              |                                                                                                                   |                                       |        |          |          |
| <b>Mandatory</b>   | FDIPLP1      | Licensing process for biomedical / human research                                                                 | Dr. Prémusz Viktória                  | 14     | 0        | <b>1</b> |
| <b>Optional</b>    | FDIP6CIE1    | Current issues of euthanasia, situation in Hungary and in the World                                               | Dr. Verzár Zsófia<br>Dr. Bányai Dávid | 14     | 0        | <b>1</b> |
|                    | FDIPCP1      | Current possibilities and challeges of first aid education and socialization                                      | Dr. Bánfai Bálint                     | 14     | 0        | <b>1</b> |
|                    | FDIPIIS1     | Insights into scientometrics                                                                                      | Dr. Prémusz Viktória                  | 14     | 0        | <b>1</b> |
| <b>4. Semester</b> |              |                                                                                                                   |                                       |        |          |          |
| <b>Optional</b>    | FDIPWH1      | Women's health                                                                                                    | Dr. Hock Márta                        | 14     | 0        | <b>1</b> |
|                    | FDIPPPA1     | Power Point - a key secret for thesis defense                                                                     | Dr. Szentpéteri József                | 14     | 0        | <b>1</b> |
| -                  | FDIP9KZS     | Surgical oncology - multidisciplinary approach (importance of diagnostics, treatment, feeding and rehabilitation) | Dr. Káposztás Zsolt                   | 14     | 0        | <b>1</b> |

|  |             |                                                                                                   |                       |    |   |          |
|--|-------------|---------------------------------------------------------------------------------------------------|-----------------------|----|---|----------|
|  | FNDIP9NTM01 | Relationship between physical activity and large population diseases: Exercise - Medicine concept | Prof. Dr. Tóth Miklós | 14 | 0 | <b>1</b> |
|--|-------------|---------------------------------------------------------------------------------------------------|-----------------------|----|---|----------|

## V. Recognition of Prior and Extracurricular Scientific Achievements

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

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

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

### *Structure of the complex exam*

The complex PhD exam is an open oral exam acknowledged by the Complex Examination Board, which was officially invited and entrusted by the Doctoral and Habilitation Board of the University (DHB). 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:

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

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

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

- have passed a successful PhD final exam in the given subject, or an exam which is equally recognized
- have participated in undergraduate training teaching the given subject for a minimum of four semesters,
- 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*

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

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

*Kutatásmódszertani alapsimeretek* szerk: Boncz Imre Pécs, 2015

[http://www.etk.pte.hu/protected/OktatasiAnyagok/%21Palyazati/sport/Kutatasmodszertan\\_e.pdf](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](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](http://www.sociology.kpi.ua/wp-content/uploads/2014/06/Ranjit_Kumar-Research_Methodology_A_Step-by-Step_G.pdf)

Polit and Beck: *Nursing research principle and methods*

[https://web2.aabu.edu.jo/tool/course\\_file/lec\\_notes/1001391\\_Nursing%20research-Principles%20and%20methods%20\(7e\\_2003\).pdf](https://web2.aabu.edu.jo/tool/course_file/lec_notes/1001391_Nursing%20research-Principles%20and%20methods%20(7e_2003).pdf)

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

**Supplementary reading**

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

## **B**

### **I. A) HEALTH ECONOMICS**

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

### **I. B) HEALTH SOCIOLOGY**

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

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

### **Compulsory reads**

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

Pikó Bettina: Egészségzociológia Új Mandátum Kiadó, 2002

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

### **Recommended reads**

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

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

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

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

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

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

## **II. CARDIOLOGY**

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

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

### III. BASICS OF PHYSIOTHERAPY

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

### IV. NEONATAL ADAPTATION

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

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

## **V. REPRODUCTIVE ENDOCRINOLOGY**

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

## **VI. CLINICAL ONCOLOGY**

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

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

### **Selected Bibliography**

Onkológia (2011, szerk.: Dank Magdolna, digitális tananyag: [www.tankonyvtar.hu](http://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 employment 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 informed 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) The Curriculum shall enter into force with its approval for the academic year 2025-2026

Prof Dr István KISS MD PhD DSc m. p.  
Full Professor  
Leader of the Doctoral School of Health Sciences