BULLETIN

UNIVERSITY OF DEBRECEN

ACADEMIC YEAR 2017-2018

FACULTY OF PUBLIC HEALTH

BSc in Public Health
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CHAPTER 1
INTRODUCTION

The aim of the University of Debrecen is to become a university of medical sciences committed to the prevention and restoration of health of the people, not only in its region but in the entire country.

In the past two decades both medical science and health care have entered a new era: the medical science of the 21st century. Molecular medicine is opening up and new possibilities are available for the diagnosis, prevention, prediction and treatment of the diseases. One can witness such a progress in medical sciences that has never been seen before. Modern attitudes in health care should be enforced in practice, including therapeutical approaches that consider the explanation and possible prevention of diseases, and attempt to comprehend and take the human personality into consideration. These approaches demand the application of the most modern techniques in all fields of the medical education.

All curricula wish to meet the challenges of modern times and they embody some very basic values. They are comprehensive; they take into consideration the whole human personality (body and soul) in its natural and social surroundings; and they are based upon the best European humanistic traditions. Moreover, all curricula prepare students for co-operation and teamwork.

With respect to education, both students and teachers are inspired to acquire higher levels of professionalism, precision, and problem solving skills, upon which the foundations of specialist training and independent medical practice can be built. This approach enables the assimilation of new scientific developments, facilitating further education and the continuous expansion of knowledge. The interplay of these factors ensures the ability to understand and handle the changing demands of health care.

With respect to research, the faculty members continuously acquire, internalize and subsume new knowledge, especially concerning the genesis, possible prevention and treatment of diseases. Moreover, new information aimed at improving, preserving and restoring the health of the society is also absorbed. The University of Debrecen is already internationally recognized in the fields of both basic and clinical research, and the clinicians and scientists of the University are determined to preserve this achievement. Special attention is given to facilitate and support the close co-operation of researchers representing basic science and clinical research, and/or interdisciplinary studies.

With respect to therapeutic practice, the main objective is to provide high quality, effective, up to date and much devoted health care to all members of the society, showing an example for other medical institutions in Hungary. One of the primary tasks is to continuously improve the actual standards of the diagnostic and therapeutic procedures and techniques, and to establish regional or even nationwide protocols.

With respect to serving the community, all faculty members wish to play a central role in shaping the policies of the health service; both within the region and in Hungary. They also want to ensure that sufficient number of medical doctors, dentists and other health care experts with university education is provided for the society.

With respect to the development, all employees strive for reinforcing those features and skills of the lecturers, scientists, medical doctors, health care professionals, collaborators and students which are of vital importance in meeting the challenges of medical education, research and therapy of the 21st century. These include humanity, empathy, social sensitivity, team-spirit, creativity, professionalism, independence, critical and innovative thinking, co-operation and management.
The organizational structure, including the multi-faculty construction of the institution, is a constantly improving, colorful educational environment, in which co-operation is manifest between the individual faculties and colleges, the various postgraduate programs as well as the molecular- and medical biology educations.

HIGHER EDUCATION IN DEBRECEN

A Brief History

1235: First reference to the town of Debrecen in ancient charters.
1538: Establishment of the “College of Reformed Church” in Debrecen.
1567: Higher education begins in the College.
1693: Declaration of Debrecen as a “free royal town”.
1849: Debrecen serves as the capital of Hungary for 4 months.
1912: Establishment of the State University of Debrecen comprising the Faculties of Arts, Law, Medicine and Theology.
1918: Inauguration of the Main Building of the Medical Faculty by King Charles IV of Hungary.
1921: The Medical Faculty becomes operational.
1932: Completion of buildings of the campus.
1944: Although during the Second World War, Debrecen became the capital of Hungary again (for 100 days), the University itself is abandoned for a while.
1949: The only year when the University has five faculties.
1950: The Faculty of Law idles; the Faculty of Science is established.
1951: The University is split up into three independent organizations: Academy of Theology, Medical School, Lajos Kossuth University of Arts and Sciences.
1991: The “Debrecen Universitas Association” is established.
1998: The “Federation of Debrecen Universities” is founded.
2000: The federation is transformed into the unified “University of Debrecen” with all the relevant faculties and with some 20,000 students.

Debrecen is the traditional economic and cultural centre of Eastern Hungary. In the 16th century Debrecen became the center of the Reformed Church in Hungary and later it was referred to as the "Calvinist Rome". The 17th century was regarded as the golden age of the city because Debrecen became the mediator between the three parts of Hungary: the part under Turkish occupation, the Kingdom of Hungary and the Principality of Transylvania. For short periods of time, Debrecen served twice as the capital of Hungary. Nowadays, with its population of approximately a quarter of a million, it is the second largest city in Hungary.

Debrecen is a unique city: although it has no mountains and rivers, its natural environment is rather interesting. One of the main attractions and places of natural uniqueness in Hungary is Hortobágy National Park, known as “puszta” (“plain”), which begins just in the outskirts of Debrecen. This is the authentic Hungarian Plain without any notable elevations, with unique flora and fauna, natural phenomena (e.g. the Fata Morgana), and ancient animal husbandry traditions. The region is unmatched in Europe, no matter whether one considers its natural endowments or its historic and ethnographic traditions. A very lovely part of Debrecen is the “Nagyerdő” (“The Great Forest”), which is a popular holiday resort. Besides a number of cultural and tourist establishments, luxurious thermal baths and spas, Nagyerdő accommodates the University campus too.

The history of higher education in Debrecen goes back to the 16th century when the College of the Reformed Church was established. The University Medical School of Debrecen has its roots in this spiritual heritage. It was in the year of the millennium of the establishment of Hungary (1896) when the foundation of the present University was decided. The University of Debrecen was established in 1912, initially having four faculties (Faculties of Arts, Law, Medicine and Theology). The University was officially inaugurated by King Charles IV of Hungary on October 23rd, 1918.
The educational activity at the University started in 1924, although the construction of the whole University was completed only in 1932. In 1951 the Faculty of Medicine became a self-contained, independent Medical University for training medical doctors.

The special training of dentists began in 1976. As a further development the University Medical School established the Health College of Nyíregyháza in 1991. In 1993, as part of a nationwide program, the University was given the rights to issue scientific qualifications and new Ph.D. programs were also launched. Several new programs (e.g. the training of molecular biologists, pharmacists, general practitioners) were commenced in the '90s. The Faculty of Public Health was established in 1999, while the Faculty of Dentistry was founded in 2000.

Education at the University of Debrecen

Debrecen, the second largest city of Hungary, is situated in Eastern Hungary. Students enrolled in the various programs (e.g. Medicine, Dentistry, Pharmacy, Public Health, Molecular Biology, etc.) study on a beautiful campus situated in the area called “Great Forest”.

The Hungarian Government gives major priorities to the higher education of health sciences in its higher education policy. One of these priorities is to increase the ratio of college level training forms within the Hungarian higher education system. The governmental policy wishes to implement conditions in which the whole health science education system is built vertically from the lowest (post-secondary or certificate) to the highest (PhD-training) levels. In fact, this governmental policy was the reason behind the establishment of the new Health Science Education Centre within the Federation of Debrecen Universities (DESZ), based partially on the intellectual resources of the University of Debrecen. The new programs – with specialized training for paramedics – will help to correct the balance of the Hungarian labor-market that became rather unsettled in the past few decades.

The Act of Higher Education (1993) has restored the rights of the medical universities to award postgraduate degrees and residency, and permission was also given to license Physicians’ procedures. This kind of training required a new structure, a new administrative apparatus, and a suitable training center. The new residency programs were commenced in 1999.

The introduction of the credit system, starting in September 2003, has been mandatory in every Hungarian university, helping the quantitative and qualitative evaluation of the students’ achievements. Admission requirements for Hungarian students are defined at national level, and they are applicable for every student wishing to be enrolled into the Medicine or Dentistry programs.

International students must pass an entrance exam in biology and (depending on their preference) in physics or chemistry. In some special cases it may be possible for the candidates to apply for transfer to higher years on the basis of their previous studies and achievements. International students study in English language. Entrance for certain courses of the Health College is also possible on the basis of a special evaluation (scoring) and an entrance interview.

The syllabuses and classes of all courses correspond to European standards. The total number of contact hours in medical education is over 5,500, which can be divided into three main parts: basic theoretical training (1st and 2nd year), pre-clinical subjects (3rd year) and clinical subjects (4th and 5th year) followed by the internship (6th year). The proportion of the theoretical and practical classes is 30% to 70%; whereas the students/instructors ratio is about 8/1. The first two years of dentistry education are similar to the medicine program, but the former contains a basic dental training that is followed by a three-year-long pre-clinical and clinical training. Besides the medicine and dentistry programs, there are several other courses also available, including molecular biology.
The various Health College courses include more and more new curricula. The Medicine program delivered in English and intended for international students was commenced in 1987; whereas the Dentistry and Pharmacy programs for international students started in 2000 and 2004, respectively. The curriculum of the English language Medicine program meets all the requirements prescribed by the European medical curriculum, which was outlined in 1993 by the Association of Medical Schools in Europe. Compared to the Hungarian program, the most important differences are:

- Hungarian language is taught,
- More emphasis is laid upon the tropical infectious diseases (as parts of the “Internal Medicine” and “Hygiene and Epidemiology” courses).

Otherwise, the English language curriculum is identical with the Hungarian one. The 6th year of the curriculum is the internship that includes Internal Medicine, Pediatrics, Surgery, Obstetrics and Gynecology, Neurology, and Psychiatry. The completion of these subjects takes at least 47 weeks, although students are allowed to finish them within a 24-month-long period. The successfully completed internship is followed by the Hungarian National Board Examination. Just like the rest of the courses, the internship is also identical in the Hungarian and English programs.

A one-year-long premedical (Basic Medicine) course, which serves as a foundation year, is recommended for those applicants who do not possess sufficient knowledge in Biology, Physics and Chemistry after finishing high school.

After graduation, several interesting topics are offered for PhD training, which lasts for three years. If interested, outstanding graduates of the English General Medicine and Dentistry programs may join these PhD courses (“English PhD-program”). Special education for general practitioners has been recently started and a new system is in preparation now for the training of licensed physicians in Debrecen.

The accredited PhD programs include the following topics:

- Molecular and Cell Biology; Mechanisms of Signal Transduction
- Microbiology and Pharmacology
- Biophysics
- Physiology-Neurobiology
- Experimental and Clinical Investigations in Hematology and Hemostasis
- Epidemiological and Clinical Epidemiological Studies
- Cellular- and Molecular Biology: Study of the Activity of Cells and Tissues under Healthy and Pathological Conditions
- Immunology
- Experimental and Clinical Oncology
- Public Health
- Preventive Medicine
- Dental Research

The PhD-programs are led by more than 100 accredited, highly qualified coordinators and tutors.

**Medical Activity at the Faculty of Medicine**

The Faculty of Medicine is not only the second largest medical school in Hungary, but it is also one of the largest Hungarian hospitals, consisting of 49 departments; including 18 different clinical departments with more than 1,800 beds. It is not only the best-equipped institution in the area but it also represents the most important health care facility for the day-to-day medical care in its region.

The Kenézy Gyula County Hospital (with some 1,400 beds) is strongly affiliated with the University of Debrecen and plays an important role in teaching the practical aspects of medicine.
There are also close contacts between the University and other health care institutions, mainly (but not exclusively) in its closer region. The University of Debrecen has a Teaching Hospital Network consisting of 19 hospitals in Israel, Japan and South Korea.

It is also of importance that the University of Debrecen has a particularly fruitful collaboration with the Nuclear Research Institute of the Hungarian Academy of Sciences in Debrecen, allowing the coordination of all activities that involve the use of their cyclotron in conjunction with various diagnostic and therapeutic procedures (e.g. Positron Emission Tomography ‘PET’).

Scientific Research at the Faculty of Medicine

Scientific research is performed both at the departments for basic sciences and at the laboratories of clinical departments. The faculty members publish about 600 scientific papers every year in international scientific journals. According to the scientometric data, the Faculty is among the 4 best of the more than 80 Hungarian research institutions and universities. Lots of scientists reach international recognition, exploiting the possibilities provided by local, national and international collaborations. Internationally acknowledged research areas are Biophysics, Biochemistry, Cell Biology, Immunology, Experimental and Clinical Oncology, Hematology, Neurobiology, Molecular Biology, Neurology, and Physiology. The scientific exchange program involves numerous foreign universities and a large proportion of the faculty members are actively involved in programs that absorb foreign connections (the most important international collaborators are from Belgium, France, Germany, Italy, Japan, the UK and the USA).

HISTORY OF THE FACULTY OF PUBLIC HEALTH

The first Faculty of Public Health in Hungary was established by the decision of the Hungarian Government on 1st December 2005, by the unification of the School of Public Health, the Department of Preventive Medicine, the Department of Family Medicine and the Department of Behavioral Sciences of the University of Debrecen.

Becoming an independent faculty of the University of Debrecen (presently uniting 15 different faculties) was preceded by a 10-year period of development. Establishment and launching of 5 different postgraduate and one graduate training programs as well as the establishment of a doctoral program were carried out by the teaching staff of the faculty with the effective support of the University of Debrecen. As a result of these efforts the Faculty became a unique, internationally recognized and competitive training center in Hungary. According to the Bologna process the Faculty has established and from 2006 and 2007 launched its bachelor and master training programs in the field of public health and health sciences. With its 3 bachelor, 5 master training programs and 6 postgraduate courses, the Faculty of Public Health offers a rich variety of learning experience at present. There are two doctoral programs available since 2009.

Close cooperation with several faculties of the University of Debrecen guided the process of becoming a faculty, and the Faculty also became an internationally recognized workshop of public health research.
ORGANISATION STRUCTURE OF THE FACULTY OF PUBLIC HEALTH

Department of Preventive Medicine
Division of Biomarker Analysis
Division of Biostatistics and Epidemiology
Division of Health Promotion
Division of Public Health Medicine
Department of Family and Occupational Medicine
Department of Behavioural Sciences
Division of Clinical and Health Psychology
Division of Humanities for Health Care
Department of Health Management and Quality Assurance
Department of Hospital Hygiene and Infection Control
Department of Physiotherapy
School of Public Health (as postgraduate training centre)

MISSION OF THE FACULTY OF PUBLIC HEALTH

The mission of the Faculty of Public Health of the University of Debrecen as the centre of public health education in Hungary is to improve health of the population by developing and maintaining high- and internationally recognized quality training programs, complying with the training needs of the public health and health care institutions, both at the graduate and postgraduate level; pursuing excellence in research; providing consultancy as well as developing and investing in our staff. The Faculty of Public Health organizes and carries out its training activities by the professional guidelines of the Association of Schools of Public Health in the European Region.

BSC IN PHYSIOTHERAPY PROGRAM AT THE FACULTY OF PUBLIC HEALTH

Bachelor program in Physiotherapy launched by the Faculty of Public Health of the University of Debrecen is built on a 17-year experience in education of physiotherapists at the University of Debrecen. The training is identical in content to the accredited Bachelor of Science program in Nursing and Patient Care with Physiotherapist specialization launched six years ago. The course is based on the University’s highly trained, internationally competitive staff and excellent infrastructure in order to fulfil an international demand in health care (involving physiotherapy) training.

The another bachelor program launched by the Faculty of Public Health is the BSc in Public Health. The majority of teachers have remarkable teaching experience in English taking part in the international training programmes of University of Debrecen.

The international MSc programs (MSc in Public Health, MSc in Complex Rehabilitation) launched by the Faculty of Public Health are offered for students graduated in the BSc courses of health sciences. Students studying in English – similarly to those studying in Hungarian – will have the opportunity to join the Students’ Scientific Association, the most important means to prepare students for future academic career.

Outstanding students may present their work at the local Students' Scientific Conference organized by the Council of the Students’ Scientific Association annually. Best performing students can advance to the National Students’ Scientific Conference held every second year. Another way for students to introduce their scientific findings is to write a scientific essay which is evaluated through a network of reviewers.
# CHAPTER 2
## ORGANISATION STRUCTURE

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<td>4400 Nyíregyháza, Sóstói u. 2-4.</td>
</tr>
<tr>
<td>Phone</td>
<td>+36-42-598-235</td>
</tr>
<tr>
<td>Fax</td>
<td>+36-42-408-656</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:dekan@foh.unideb.hu">dekan@foh.unideb.hu</a></td>
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<tr>
<td>Position</td>
<td>Name</td>
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<td>----------------------------------------------</td>
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<tr>
<td>Vice-Dean for Scientific Affairs</td>
<td>János Kiss Ph.D.</td>
</tr>
<tr>
<td>Vice-Dean for Educational Affairs</td>
<td>Attila Sárváry Ph.D.</td>
</tr>
<tr>
<td>Vice-Dean for General and Development Affairs</td>
<td>Gergely Fábián Ph.D.</td>
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<td>FOREIGN MEDICAL STUDENT ASSOCIATION (FMSA)</td>
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CHAPTER 3
ADMINISTRATIVE UNITS

EDUCATIONAL ORGANIZATIONAL OFFICE OF FACULTY OF PUBLIC HEALTH
Kassai str. 28, Debrecen, 4028, Tel: 52-512-765/77408
E-mail: info@sph.unideb.hu, Web: http://nk.unideb.hu

Head
Ms Zsuzsa Nagy-Belgyár

Education Officer, Contact Person
Mr Róbert Bata
Ms. Zsuzsa Flóra Péter
Ms Andrea Krizsán
Ms. Timea Géber

COORDINATING CENTER FOR INTERNATIONAL EDUCATION
Nagyerdei krt. 94., Debrecen, 4032
Telephone: +36-52-258-058 Fax: +36-52-414-013
E-mail: info@edu.unideb.hu, Web: www.edu.unideb.hu

Director
Prof. Attila Jenei Ph.D.

Program Coordinator
Prof. Ferenc Erdődi Ph.D, D.Sc.

BMC Coordinator
Ms. Beáta Lontay Ph.D.

Manager Assistants
Ms. Anna Kapitány M.Sc.
Ms. Andrea Tiba B.Sc.

Contract&Marketing Coordinator
Ábrahám Gergely Varga J.D.

Financial Coordinator
Ms. Rita Kovács J.D.

Agent Coordinator
József Harmati J.D.

English Program Coordinators
Ms. Dóra Benkő B.A.
(Admissions, Visa issues, BMC)

Ms. Adrienn Gagna-Szakó M.Sc.
(Admissions, BMC, US Loans, Wyckoff HMC Applications)

Ms. Anett Galvácsi M.A
(Tuition fee, Financial Certificates, Refunds, USMLE Coordinator)

Ms. Katalin Győre M.A.
(Admissions, Visa issues, BMC)

Ms. Krisztina Németh M.Sc.
(Bulletin)
Ms. Enikő Sallai M.Sc.
(Tuition fee, Health Insurance)

Ms. Bella Brigitta Szilágyi M.A.
(Stipendium Hungaricum Coordinator)

IT Project Coordinator

Imre Szűcs B.Sc.
CHAPTER 4
DEPARTMENTS OF THE FACULTY OF PUBLIC HEALTH

ASSOCIATE PROFESSOR, HEAD OF DEPARTMENT
Ms. Karolina Kósa M.D., M.Sc., Ph.D.

ASSOCIATE PROFESSOR, HEAD OF DIVISION OF CLINICAL AND HEALTH PSYCHOLOGY
Ms. Ildikó Kuritár Szabó M.A., Ph.D.

ASSOCIATE PROFESSOR, HEAD OF DIVISION OF HUMANITIES FOR HEALTH CARE
Attila Bánfalvi M.A., Ph.D., C.Sc.

PROFESSOR EMERITUS
Péter Molnár M.D., D.Sc.

ASSISTANT PROFESSOR
Ms. Mónika Andrejkovics M.A., Ph.D.
Péter Kakuk M.A., Ph.D.
Ms. Judit Molnár M.A., Ph.D.
Roland Tisljár M.A., Ph.D.

ASSISTANT LECTURER
János Kristóf Bodnár M.A., Ph.D.
Sándor Kőmöves M.A., Ph.D.
Ms. Eszter Tisljár - Szabó M.A., Ph.D.
Ms. Beáta Kovács-Tóth M.A.

INVITED LECTURER
Bence Döbrössy M.A.

INTERN
Ms. Bernadett Bodor M.Sc.
Ms. Katalin Mária Dallos M.Sc.
Ms. Mártar Erdei M.Sc.
Ms. Bernadett Hidegh M.Sc.
Ms. Éva Knapek M.Sc.
Ms. Katalin Merza M.A.
Ms. Erika Nagy M.Sc.
Ms. Anna Eszter Rácz M.Sc.

PHD STUDENT
Dánhel Balajthy M.Sc.
Ms. Amanda Illés M.Sc.
Szabolcs Kató M.Sc.
Ms. Orsolya Micskei M.Sc.
Ms. Brigitta Munkácsi M.Sc.
Ms. Anikó Nagy M.Sc.
Academic Advisor

Ms. Mónika Andrejkovics M.A., Ph.D.
(4th year, Behavioural Medicine, Behavioural Science Final Exam)

Attila Bánfalvi M.A., Ph.D., C.Sc.
(3rd year, Medical Anthropology, Medical Sociology)

Péter Kakuk M.A., Ph.D.
(4th year, Bioethics)

Ms. Judit Molnár M.A., Ph.D.
(3rd year Medical Psychology, 5th year Pharmaceutical Psychology)

Roland Tisljár M.A., Ph.D.
(1st year, Basics of Behavioural Sciences, Communication)

DEPARTMENT OF FAMILY AND OCCUPATIONAL MEDICINE, FACULTY OF PUBLIC HEALTH
Móricz Zs. Krt. 22., Debrecen, 4032, Tel: +36-52-25-52-52
E-mail: csotanszek@sph.unideb.hu, Web: www.fam.med.unideb.hu www.nk.unideb.hu

Full Professor, Head of Department

Imre Rurik M.D., M.Sc., Ph.D., D.Sc.

Professor Emeritus

István Ilyés M.D., M.Sc., Ph.D.

Assistant Professor

Zoltán Jancsó M.D., Ph.D.

Assistant Lecturer

Ms. Anna Nánási M.D.

Ms. Judit Szidor M.D.

Ms. Hajnalka Tamás M.D.

Ms. Tímea Ungvári M.Sc.

László Róbert Kolozsvári M.D., Ph.D.

Clinical Specialist

Ms. Emőke Lengyel M.D.

Ms. Izabella Sziágyi M.D.

Ms. Erzsébet Tóth M.D.

Undergraduate educational officer

Ms. Tímea Ungvári M.Sc.

Postgraduate educational officer

Ms. Anna Nánási M.D.

Other Invited Lecturers

István Erdei M.D.

János Hintalan M.D.

Ms. Eszter Kovács M.D.

Ms. Hajnalka Márton M.D.

Csaba Sárkány M.D.

Attila Simay M.D., Ph.D.
(Hon. Associate Professor)

Péter Szerze M.D.
Ms. Margit Szövetes M.D.

DEPARTMENT OF HEALTH MANAGEMENT AND QUALITY ASSURANCE, FACULTY OF PUBLIC HEALTH
Nagyerdei krt. 98., Debrecen, 4032, Tel: 06-52-255-052
E-mail: lepp.anett@med.unideb.hu, Web: www.emmt.unideb.hu

Associate Professor, Head of Department Ms. Klára Biró D.M.D., Ph.D.
Associate Professor Ms. Judit Zsuga M.D., Ph.D.
Assistant Lecturer Gábor Bánya-Márton J.D.
Assistant Ms. Klára Boruzs MBA
Assistant Ms. Anett Lepp
Strategic Advisor Csaba Papp M.D., M.Sc., PhD
Research Assistant Viktor Dombrádi jr M.Sc.

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Associate Professor, Head of Department Ms. Piroska Orosi M.D., Ph.D.
Staff Member Ms. Ágnes Borbély M.D.
Ms. Judit Kecskés

DEPARTMENT OF PHYSIOTHERAPY, FACULTY OF PUBLIC HEALTH
Kassai str. 26., Debrecen, 4028, Tel: 36-52-512-732
E-mail: cseri.julianna@sph.unideb.hu, Web: http://nk.unideb.hu

Associate Professor, Head of Department Ms. Ilona Veres-Balajt M.Sc., Ph.D.
College Professor, Coordinator of BSc in Physiotherapy Program Ms. Julianna Cseri M.D., Ph.D
Assistant Professor Balázs Lukács M.Sc., Ph.D.
Ms. Zsusanna Némethné Gyurcsik M.Sc., Ph.D.
Ms. Andrea Váncsa M.D., Ph.D.
Assistant Lecturer Ms. Zsuzsa Lábicsák-Erdélyi M.Sc.
Ms. Judit Pál linkás M.Sc.
Invited Lecturer
Ms. Katalin Papp M.Sc., Ph.D.
Imre Semsei Ph.D., D.Sc.
Zoltán Szentkereszty M.D.
Ms. Adrienne Tóthmartinez M.D.

Practice Teacher
Ms. Éva Csepregi M.Sc.

Instructor
Ms. Éva Anett Csuhai
Ms. Petra Major

PhD student
Ms. Hajnalka Petrika M.Sc.

Academic Advisor
Ms. Zsuzsanna Némethné Gyurcsik M.Sc., Ph.D.

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Full Professor, Head of Department
Ms. Róza Ádány M.D., Ph.D., D.Sc.

Associate Professor, Head of Division Public Health Medicine
István Kárpáti M.D., Ph.D.

Full professor, Head of Biomarker Analysis Division

Associate Professor, Head of Biostatistics and Epidemiology Division
János Sándor M.D., Ph.D.

Associate Professor
Balázs Ádám M.D., M.Sc., Ph.D.
Ms. Helga Bárdos M.D., M.Sc., Ph.D.

Assistant Professor
Sándor Szűcs M.Sc., Ph.D.
Ervin Árnyas M.Sc., Ph.D.
Ms. Éva Biró M.D., Ph.D.
Ms. Szilvia Fialtal M.D., Ph.D.
Ms. Orsolya Varga M.D., Ph.D.

Assistant Lecturer
Tibor Jenei
Tamás Köbling M.D.
Attila Csaba Nagy M.D., Ph.D.
Károly Nagy Ph.D.
László Pál Ph.D.
Gábor Rácz M.D.

Resident
Gergely Fürjes M.D.
Ms. Márta Füzi M.D.
Ms. Dóra Kölesné Dezső M.D.

Invited Lecturer
György Juhász M.D.
József Legoza M.D.

Hungarian Academy of Sciences University of Debrecen Public Health Research Group Fellow
Ms. Judit Diószegi M.D., PhD

Research Assistant
Ms. Timea Kiss M.Sc.
Ms. Viktória Koroknai M.Sc.
Ms. Nóra Kovács M.Sc.
Péter Pikó M.Sc.
István Szász M.Sc.
Ms. Valéria Vinczéné Sipos M.Sc.

PhD Student
Edafiogho Peter Eseroghene M.Sc.
Ms. Krisztina Jámbor M.Sc.
Ms. Beáta Soltész M.Sc.
Gergő József Szöllősi M.Sc.
Ferenc Vincze M.Sc.
Ms. Orsolya Bujdosó M.Sc.
Ms. Gabriella Pénzes M.Sc.
Szabolcs Lovas M.Sc.
## UNIVERSITY CALENDAR

UNIVERSITY CALENDAR FOR THE BSC IN PUBLIC HEALTH PROGRAM
ACADEMIC YEAR 2017/2018

### 1ST SEMESTER

<table>
<thead>
<tr>
<th>Registration week</th>
<th>Course</th>
<th>Examination Period</th>
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### 2ND SEMESTER

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Orientation meeting (planned): September 8., 2017. 10.00 am
## Compulsory courses for the 1. year

<table>
<thead>
<tr>
<th>Sem</th>
<th>Subjects</th>
<th>Neptun code</th>
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<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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<td>General principles of Nursing and Clinical Medicine</td>
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# Compulsory courses for the 1. year

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## Compulsory courses for the 2. year

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<th>Prerequisites of taking the subject</th>
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</table>
### Compulsory courses for the 2. year

<table>
<thead>
<tr>
<th>Sem</th>
<th>Subjects</th>
<th>Neptun code</th>
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<td>6</td>
<td>Public health medicine I.</td>
</tr>
<tr>
<td>2</td>
<td>Microbiology II.</td>
<td>NK_PH_BMIC2</td>
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<td>Microbiology I.</td>
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<td>Terrestrial environment protection</td>
<td>NK_PH_TERR</td>
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## Compulsory courses for the 3. year

<table>
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<tr>
<th>Sem</th>
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<th>L</th>
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<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Health promotion and health policy</td>
<td>NK_PH_HPHP</td>
<td>15</td>
<td>30</td>
<td>ESE</td>
<td>4</td>
<td>Introduction to public health; Introduction to law II.</td>
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<tr>
<td>1</td>
<td>Epidemiology of communicable and non-communicable diseases II.</td>
<td>NK_PH_EPIC2</td>
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<tr>
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<td>NK_PH_HLAW1</td>
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<td>Basic epidemiology, Environmental health</td>
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### Compulsory courses for the 3. year

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## Compulsory courses for the 4. year

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<td>Nutritional health and food safety</td>
<td>NK_PH_NUTR1</td>
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<td>AW5</td>
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<td>Field and laboratory practice I.</td>
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<td>NK_PH_HPPC</td>
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<td>Professional Hungarian I.</td>
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## Compulsory courses for the 4. year

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<th>Subjects</th>
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<th>L</th>
<th>S</th>
<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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<tr>
<td>2</td>
<td>Field and laboratory practice III.</td>
<td>NK_PH_FLAB3</td>
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<td>Field and laboratory practice II.</td>
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<td>Basics of quality assurance</td>
<td>NK_PH_BQASS6</td>
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<td>ESE</td>
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</tr>
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</table>
## CHAPTER 10
### ACADEMIC PROGRAMME

Department of Emergency Medicine

Subject: **FIRST AID**  
Year, Semester: 1st year/1st semester  
Number of teaching hours: **30**  
Lecture: **15**  
Practical: **15**

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Definition of “first aid”; first aid levels; time factor; behaviour of first responder in the field; the emergency call</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>Unconsciousness; airway obstruction; airway opening maneuvers.</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>Death as a process; determining of clinical death; the different oxygen demand of the brain depending on age; establishing unconsciousness or death; assessment of vital signs; assessment of breathing, circulation, pupils and muscle tone</td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>Reanimation on the spot – organisation problems; the theory of CPR; complications during the CPR; effect, results and success during CPR</td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td>Burning, first aid in burning diseases, shock.</td>
<td></td>
</tr>
<tr>
<td>6th</td>
<td>AVPU, ABCDE approachment.</td>
<td></td>
</tr>
<tr>
<td>7th</td>
<td>Recognition of unconsciousness, recovery position, airway management.</td>
<td></td>
</tr>
<tr>
<td>8th</td>
<td>Practicing the ventilation.</td>
<td></td>
</tr>
<tr>
<td>9th</td>
<td>Complex CPR training, usage of AED.</td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>Practical exam.</td>
<td></td>
</tr>
<tr>
<td>11th</td>
<td>Types of bleeding, bleeding control, hypovolaemic shock, Trendelenburg position.</td>
<td></td>
</tr>
<tr>
<td>12th</td>
<td>Distortions and extended soft-tissue injuries, bandage for fixation with special triangle, stifneck, dessault bandage, fixation of finger and hand fractures, usage of siplint.</td>
<td></td>
</tr>
<tr>
<td>13th</td>
<td>Basic trauma care.</td>
<td></td>
</tr>
<tr>
<td>14th</td>
<td>Consultation, written test.</td>
<td></td>
</tr>
<tr>
<td>15th</td>
<td>Intoxication, guideline of poisoning in toxicology, typical intoxications, special sings, first aid.</td>
<td></td>
</tr>
</tbody>
</table>

### Requirements

Condition of signing the Lecture book:  
Attendance at practices is compulsory. The tutor may refuse to sign the Lecture book if the student

30
is absent from the practicals more than twice in a semester. Missed practicals should be made up after consultation with the tutor. Facilities for a maximum of 2 make-up practicals are available at the Ambulance Center in Debrecen. The current knowledge of students will be tested twice in each semester driving a written test.

Department of Foreign Languages

Subject: **HUNGARIAN LANGUAGE I.**

Year, Semester: 1st year/2nd semester
Number of teaching hours: 30
Practical: 30

1st week:
**Practical:** 1. lecke (Greetings, the alphabet, numbers 0-20, colours, everyday expressions)

2nd week:
**Practical:** 2. lecke (Nationalities, languages, numbers 21-29)

3rd week:
**Practical:** 3. lecke, 4. lecke (Names of places, the days of the week, numbers 30-100, the time, hány óra van?, Test Your Knowledge 1)

4th week:
**Practical:** 5. lecke (adjectives and adverbs, verbs expressing activities 1, times of day, hány órakor?, numbers 1000-1000000000)

5th week:
**Practical:** 6. lecke (verbs expressing activities 2, everyday expressions, ordinal numbers)

6th week:
**Practical:** 7. lecke (Revision 1 Units 1-6)

7th week:
**Practical:** Midterm test

8th week:
**Practical:** 8. lecke (everyday objects, food and drink, adverbs of frequency)

9th week:
**Practical:** 9. lecke (Food, drink, fruit, vegetables, the menu, ordering in a restaurant, shopping in the market, the uses of tessék)

10th week:
**Practical:** 10. lecke (the weather, the seasons and months, clothes)

11th week:
**Practical:** 11. lecke (Test Your Knowledge 2), 12. lecke I. rész (body parts)

12th week:
**Practical:** 12. lecke II. rész (adjectives and descriptions, accessories), 13. lecke (jobs, places, personal details and filling in a form, family relations)

13th week:
**Practical:** 14. lecke (Revision 2 Units 8-13)

14th week:
**Practical:** End term test

15th week:
**Practical:** Oral exam

Requirements

Requirements of the course:
Attendance
Attending language classes is compulsory. Students should not be absent from more than 10 percent of the classes. If a student is late it is considered as an absence. If a student misses more than two occasions, the final signature may be refused and the student must repeat the course.

Absentees can make up the missed classes in the same week. Maximum one language class may be made up with another group. Students have to ask for the teacher's written permission (by e-mail) 24 hours in advance. Students can attend any class (make up or regular) only if they take their coursebook with them.

The teacher evaluates active participation in each class. Students are not supposed to share coursebooks in the classes therefore if they fail to bring the coursebook to the class for the second time the attendance is refused.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and an oral exam. A further minimum requirement is the knowledge of 200 words per semester divided into 10 word quizzes. There are five word quizzes before and another five after the midterm test. If students fail or miss any word quizzes they cannot start their written test and have to take a vocabulary exam that includes all 100 words before the midterm and end term tests. A word quiz can be postponed by a week and students can take it only with their own teacher. Students can get bonus points (5-5%) by taking two extra quizzes containing 20 sentences each before the midterm and end term tests. The sentences are taken from the units of the coursebook.

The oral exam consists of a role-play from a list of situations covered in the coursebook. If students fail the oral exam, they fail the whole course. The results of the written tests and the oral exam are combined and averaged.

Based on the final score the grades are given as follows.

<table>
<thead>
<tr>
<th>Final score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-59</td>
<td>fail (1)</td>
</tr>
<tr>
<td>60-69</td>
<td>pass (2)</td>
</tr>
<tr>
<td>70-79</td>
<td>satisfactory (3)</td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
</tr>
<tr>
<td>90-100</td>
<td>excellent (5)</td>
</tr>
</tbody>
</table>

If the final score of the written tests is below 60, the student can take a written remedial exam once covering the whole semester's material.

Course book: See the website of the Department of Foreign Languages: ilekt.med.unideb.hu. Audio files to the course book, oral exam topics and vocabulary minimum lists are also available on the website.

Subject: MEDICAL LATIN
Year, Semester: 1st year/1st semester
Number of teaching hours: 30
Practical: 30

1st week:
Practical: Class introduction and Chapter 1
Introduction to medical terminology

2nd week:
Practical: Chapter 2: Anatomical positions,
4th week:
**Practical:** Grammar 1: Basic elements of Latin grammar

5th week:
**Practical:** Chapter 4: Greek roots

6th week:
**Practical:** Chapter 5: Regions

7th week:
**Practical:** Formation of adjectives

8th week:
**Practical:** Revision, Mid-term Test
**Self Control Test**

9th week:
**Practical:** Chapter 6: Skeletal system I

10th week:
**Practical:** Skeletal system II, Plural forms

11th week:
**Practical:** Chapter 7: Joints

12th week:
**Practical:** Complex adjectives

13th week:
**Practical:** Chapter 8 Muscles Latin and Greek prefixes related to numerals and quantities; Latin numerals

14th week:
**Practical:** Revision 2 –, End-term Test
**Self Control Test**

15th week:
**Practical:** Evaluation

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**Requirements**

By the end of the term students should:

- know the vocabulary pertaining to 1) the anatomical positions, 2) planes and directions; 3) the body parts; 4) the bones and the skeleton; 5) the body regions; 6) the bone connections; 7) the muscular system;

- understand basic grammatical terms like Singular, Plural, Nominative, Genitive, etc.;

- be able to use Latin nouns in both Singular Nominative and Genitive as well as Plural forms

- be able to use Latin adjectives in concord with the nouns in adjective phrases

- be able to understand prefixes related to numerals and quantities

- be able to form adjectives from Latin nouns;

- be able to understand and actively use several Latin and Greek prefixes and suffixes relating to medical terminology.
Department of Internal Medicine

Subject: GENERAL PRINCIPLES OF NURSING AND CLINICAL MEDICINE
Year, Semester: 1st year/1st semester
Number of teaching hours: 30
Lecture: 15
Practical: 15

1st week:
**Lecture:** The history of nursing and medicine
The physician’s behavior. The patient and health care staff relationship. The professional secrecy. The aim of the diagnosis and its different forms. Symptoms of diseases.

2nd week:
**Lecture:** System of definitions and philosophy of nursing; nursing theories; nursing models, basic human needs; assessment of the basic human needs; patient observation. Nursing protocols and standards. Rules of the nursing documentation; ethical and legal aspects of nursing.

3rd week:
**Lecture:** Physiological breathing: needs of the rest and movements and their gratification; needs of nutrition, water and fluid balance and their gratification; suitable clothes and physiological body temperature.

4th week:
**Lecture:** Defecation and micturition; hygienic needs; needs of communication and information. Needs of the safety; the unconscious patient; postoperative nursing tasks; aseptic and hygienic environment. How to take care of a dying patient.

5th week:
**Practical:** Scene of the nursing; structure of a hospital unit; observation of the patient; measurement of vital parameters. Nursing diagnosis and preparing of the nursing plan; maintenance of the patient’s personal hygiene; beds and bed-making; methods of bed-making; general and specific instructions for the bed-making.

6th week:
**Practical:** Patient medication; personal and objective conditions of feeding; artificial feedings; feeding with tube.

7th week:
**Lecture:** Tools for collecting urine and faeces; the planning and evaluation of the safety for patient.

8th week:
**Lecture:** History taking. Family history, previous diseases, present complaints. Types of diagnosis, hospital course, hospital discharge summary. General medical physical examination (inspection, palpation, percussion, auscultation).

9th week:
**Lecture:** Physical examination of the skin, head, neck, and thyroid gland, the lymph nodes, the oral cavity, the eyes and the breasts and axillae.

10th week:
**Lecture:** Clinical laboratory: anatomic pathology, clinical microbiology, clinical biochemistry, hematology. Non invasive and invasive diagnostic tests (electrocardiography, nuclear medicine techniques, x-ray, ultrasound, MRI, PET, CT etc), cardiac catheterization and different forms of endoscopy.

11th week:
**Lecture:** Physical examination of the respiratory and cardiovascular system.

12th week:
**Lecture:** Physical examination of the abdomen and genital-urinary system.

13th week:
**Lecture:** Physical examination of the locomotors
system and the nervous system.

14th week:
Lecture: Different forms of management of patients, Drug treatment efficacy, side effects, overdose and interaction. Clinical toxicology.

15th week:
Lecture: Final tutorial – consultation

Requirements

There are no requirements to take the Introduction to Nursing and Clinical Medicine course. Attendance of lectures is highly recommended, since the topics in examination cover the lectured topics. Attendance of practices is compulsory. If you missed more than 2 practices, the signature may be refused. To pass the practical examination is the indispensable condition for signature of Lecture Book.

Department of Preventive Medicine, Faculty of Public Health

Subject: ECOLOGY
Year, Semester: 1st year/1st semester
Number of teaching hours: 45
Lecture: 30
Seminar: 15

1st week:
Seminar: Mountain Sickness

2nd week:
Lecture: The general effects of environmental pollution (deforestation, desertification, loss of biological diversity, acid precipitation, global warming, depletion and degradation of terrestrial aquifers, depletion of stratospheric ozone layer)
Seminar: Global warming and its health impacts – „Six Degrees Could Change the World”

3rd week:
Lecture: The origin and evolutionary history of life on planet Earth.
Seminar: The Large Hadron Collider.

4th week:
Seminar: Thermoregulation, blood glucose homeostasis and osmoregulation.

5th week:

6th week:
Seminar: Analysis of exponential and logistic
growth curves by Populus program.

7th week:
Lecture: Concept of the ecosystem. Components of ecological systems and essential processes. Ecosystems energetic. The nature of energy. Primary and secondary production. Food chains; Trophic levels and ecological pyramids. Succession (vegetation changes; the causes of change; patterns of succession). Human influence on succession.
Seminar: Bacteria as Multicellular Organisms.

8th week:
Seminar: Coral reef in danger.

9th week:
Seminar: Big Forest of Debrecen and Lesser Mole Rat Reserve of Hajdúbagos.

10th week:
Seminar: Orchid habitat restoration and preservation.

11th week:
Seminar: Water ecosystems.

12th week:
Seminar: Social life of ants.

13th week:
Seminar: Genetically modified organisms.

14th week:
Seminar: Origin of the Earth’s atmosphere.

15th week:
Seminar: Industrially important bacteria.

Requirements

Introduction of the ecological knowledge essential for the professional grounds of Public Health training, the development of the attitude required for its efficient application for students to get a good understanding of the complexity of organism-environment-system and to promote its conscious application in public health.
Subject: **HEALTH INFORMATICS I.**
Year, Semester: 1st year/1st semester
Number of teaching hours: **30**
Lecture: **10**
Practical: **20**

1st week:
**Lecture:** Information and data management. The concepts of data and information. The basic algorithms of data management. The concept of coding, its different approaches, its advantages and disadvantages, code-refreshing. The fundamentals of database management, data models, the concept of database. The operators of database management. Handling data with database programs (MS Access).

2nd week:
**Lecture:** The fundamentals of health classification. The widely used health classification systems: BNO, WHO, SNOMED.

3rd week:
**Lecture:** The networks of informatics, long distance data management. Health and public health, online and offline data bases. Data and information retrieval.

4th week:
**Lecture:** Health and public health data administration. Health and public health data and information systems data flow and data exchange. Health and public health data bases.

5th week:
**Lecture:** Library information systems: MEDLINE, PUBMED, CD-ROM-ok multimedia systems. Health and public health libraries, online and offline data collection in these libraries and databases.

6th week:
**Practical:** Database management: the fundamentals of database management, knowledge and data transfer between spreadsheet and database manager programs.

7th week:
**Practical:** Data retrieval from health and public health databases, formulating quarries on the quarry grind of MS Access I.

8th week:
**Practical:** Data retrieval from health and public health databases, formulating quarries on the quarry grind of MS Access II.

9th week:
**Practical:** Creating and normalizing data tables and data bases. Designing forms and reports.

10th week:
**Practical:** Presenting demo health and public health systems.

11th week:
**Practical:** The fundamentals of space and graphic informatics, the application of them in health and public health routine.

12th week:
**Practical:** The legal and ethical questions of data protection and privacy, the rules of handling these data.

13th week:
**Practical:** Handling digital data, the problem of data security. The systems and methods of data protection both hardware and software.

14th week:
**Practical:** Scientific data retrieval and collection. Searching in online and offline libraries. The selection of appropriate hardware and software tools, data and knowledge transfer in health and computer related problem solving I.
15th week:
**Practical:** Scientific data retrieval and collection. Searching in online and offline libraries. The selection of appropriate hardware and software tools, data and knowledge transfer

**in health and computer related problem solving**

**Handling in and presenting presentations in the indicated subject.**

Requirements

The fundamentals of health informatics, introduction to public health information systems and the most frequently used health-connected computer applications. Data and knowledge transfer between different health informatics systems and data format and types.

Subject: **MATHEMATICAL BASICS OF BIOSTATISTICS**

Year, Semester: 1st year/1st semester  
Number of teaching hours: **60**  
Seminar: **15**  
Practical: **45**

1st week:  
**Lecture:** Mathematical notation, formulas, operations  
**Seminar:** Mathematical notation, formulas, operations

2nd week:  
**Lecture:** Equations, inequalities  
**Seminar:** Equations, inequalities

3rd week:  
**Lecture:** The concept of sets, set operations  
**Seminar:** The concept of sets, set operations

4th week:  
**Lecture:** Combinatorics  
**Seminar:** Combinatorics

5th week:  
**Lecture:** Relations, functions  
**Seminar:** Relations, functions

6th week:  
**Lecture:** Number sequences and series  
**Seminar:** Number sequences and series

7th week:  
**Lecture:** The concept of limit  
**Seminar:** The concept of limit

8th week:  
**Lecture:** Calculus  
**Seminar:** Calculus

9th week:  
**Lecture:** Mathematical investigation of functions  
**Seminar:** Mathematical investigation of functions

10th week:  
**Lecture:** Basic concepts of probability  
**Seminar:** Basic concepts of probability

11th week:  
**Lecture:** Classical probability  
**Seminar:** Classical probability

12th week:  
**Lecture:** The mathematical concept of probability  
**Seminar:** The mathematical concept of probability

13th week:  
**Lecture:** Total probability theorem, Bayes’ theorem  
**Seminar:** Total probability theorem, Bayes’
Theorem

14th week:
Lecture: Random variables, expected value, standard deviation
Seminar: Random variables, expected value, standard deviation

15th week:
Lecture: Probability distributions
Seminar: Probability distributions

Requirements

The aim is to refresh and improve previous mathematical knowledge and to establish a strong foundation for biostatistics and epidemiology.

Subject: PHILOSOPHY
Year, Semester: 1st year/1st semester
Number of teaching hours: 15
Lecture: 15

1st week:
Lecture: Oxford Concise Medical Dictionary

2nd week:
Lecture: Martin Heidegger: What is Metaphysics?

3rd week:
Lecture: Rudolf Carnap: The Elimination of Metaphysics Through Logical Analysis of Language

4th week:
Lecture: Rudolf Carnap: The Elimination of Metaphysics Through Logical Analysis of Language

5th week:
Lecture: The Philosophical Questions of Health and Disease 1.

6th week:
Lecture: The Philosophical Questions of Health and Disease 2.

7th week:
Lecture: The Philosophical Questions of Health and Disease 3.
Self Control Test

8th week:

Requirements

This lecture is to provide the audience with a concise, yet overall introduction into the history and most basic concepts of the Western philosophical thought. A more particular and practical emphasis is placed to assist future health experts in addressing the philosophical questions of life sciences, most prominently public health.
Institute of Behavioural Sciences, Faculty of Public Health

Subject: **BIOETHICS**  
Year, Semester: 1st year/1st semester  
Number of teaching hours: **15**  
Lecture: **15**

1. **week**  
   Lecture: Introduction to modern ethics.  
   The basics of bioethics

2. **week**  
   Lecture: The relationship between morality, ethics, professional ethics and the law.

3. **week**  
   Lecture: Ethical theories and principles

4. **week**  
   Lecture: Patients’ Rights

5. **week**  
   Lecture: Confidentiality and privacy in healthcare

6. **week**  
   Lecture: Autonomy and self-determination

7. **week**  
   Lecture: Ethics of clinical research

8. **week**  
   Lecture: Ethics of animal experimentation

9. **week**  
   Lecture: Ethics at the beginning of life

10. **week**  
    Lecture: Ethics and end-of-life decision-making

11. **week**  
    Lecture: Ethics of organ transplantation

12. **week**  
    Lecture: Ethical theory and moral judgement

13. **week**  
    Lecture: Ethical case presentation

14. **week**  
    Lecture: Ethical case presentation

15. **week**  
    Lecture: Consultation

**Requirements**

Attendance and activity in the classes; usable understanding of the core theoretical knowledge;  
knowledge about the actual patients’ rights regulation.  
There will be opportunities to make individual presentations on relevant topics.

Subject: **COMMUNICATION**  
Year, Semester: 1st year/1st semester  
Number of teaching hours: **30**  
Lecture: **15**  
Practice: **15**

1st **week:**  
**Lecture:** Introduction to the concept of communication. Channels of communication.  
Verbal and non-verbal communication. The main non-verbal channels.

2nd **week:**  
**Lecture:** The helping relationship. Influencing factors, principles. The role of empathy in the communication.

3rd **week:**  
**Lecture:** Aggressive, passive and assertive communication. Effective communication techniques
4th week:
**Lecture:** The importance of communication with people in different situations. Difficulties in communication situations. Persuasive communication.

**Practical:**

---

5th week:
**Lecture:** Communication Disorders. Special issues in communication. Management of the conflicts occurred during the helping relationship. Communication with the elderly. Communication with impaired persons. Communication with the 'difficult' patient. Communication with acute patients.

**Practical:**
Discussing the semester’s tasks, the conditions of getting a mark, preparation for the field practice. Getting acquainted, introduction. Expectations and fears.

---

6th week:
**Practical:**
Review of the basic concepts of communication, communication channels.

---

7th week:
**Practical:**
Verbal and non-verbal communication.

---

8th week:
**Practical:**
Empathy, problems of empathy, active listening. Collaborative communication.

---

9th week:
**Practical:**
Significance of the first impression. Analysis of our own communication styles. Aggressive, passive and assertive communication. Persuasive communication.

---

10th week:
**Practical:**
Film – the doctor.

---

11th week:
**Practical:**
Film – analyzing its communicational aspect.

---

12th week:
**Practical:**
Field practice – observation (no course).

---

13th week:
**Practical:**
Persuasive communication Effective communications techniques. Presentation of the field practice and feedbacks.

---

14th week:
**Practical:**
Presentation of the field practice and feedbacks.

---

15th week:
**Practical:**
Presentation of the field practice. Closing the semester, semester-review. Feedbacks. Written exam.

---

Subject: **BASIC PSYCHOLOGY**
Year, Semester: 1st year/1st semester
Number of teaching hours: **30**
Lecture: **30**
1st week:
Lecture: Introduction

2nd week:
Lecture: Nature of psychology: main fields, theories and methodologies.

3rd week:

4th week:

5th week:
Lecture: Normative life crises (Erikson). The course of dying. Death, grief.

6th week:
Lecture: Learning and conditioning: different approaches of learning. Classical and operant conditioning.

7th week:
Lecture: Motivation: rewards and incentives, urges, homeostasis, hunger and sexuality (Maslow).

8th week:
Lecture: Emotions: arousal, expression of emotions, reactions to emotional states, aggression.

9th week:
Lecture: Personality: psychoanalytic, behavioral and phenomenological approach.

10th week:

11th week:

12th week:
Lecture: Biopsychosocial model. Health behaviors: definition, demographic determinants. The model of health beliefs, variables influencing health attitudes.

13th week:

14th week:
Lecture: Illness as crisis. Chronic illness, hospitalisation.

15th week:
Lecture: Methods of psychotherapy: dynamic, behavioral and cognitive methods.

Requirements

Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics.

Subject: BASIC SOCIOLOGY
Year, Semester: 1st year/1st semester
Number of teaching hours: 15
Lecture: 15

1st week:
Lecture: Introduction to sociology and to the

module
2nd week:
Lecture: Definition of health; gender and health

3rd week:
Lecture: Social class and health; ethnicity and health

4th week:
Lecture: Families and changing family relationships

5th week:
Lecture: Social forces, health and illness

6th week:
Lecture: The social distribution of illness

7th week:
Lecture: The experience of illness, social contexts

8th week:
Lecture: Disability and chronic illness

9th week:
Lecture: Mental health and mental illness

10th week:
Lecture: The profession of medicine

11th week:
Lecture: Other health care providers

12th week:
Lecture: Patients and practitioners

13th week:
Lecture: Main scopes of social policy in general and in Hungary I

14th week:
Lecture: Main scopes of social policy in general and in Hungary II

15th week:
Lecture: Repetition, discussion

Requirements
Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics.

Department of Foreign Languages
Subject: HUNGARIAN LANGUAGE II.
Year, Semester: 2nd year/1st semester
Number of teaching hours: 30
Practical: 30

1st week:
Practical: 1. lecke (Introducing yourself, meeting someone)

2nd week:
Practical: 2. lecke (jobs, general places in town)

3rd week:
Practical: 3. lecke (speaking about someone's week, arranging a meeting)

4th week:
Practical: 4. lecke (The family tree)

5th week:
Practical: 5. lecke (body parts, basic symptoms)

6th week:
Practical: Revision

7th week:
Practical: Midterm test
8th week:
Practical: 6. lecke (Nekem van / I have, possessive pronouns)
Self Control Test

9th week:
Practical: 7. lecke (Comparative and superlative forms of adjectives, comparison)

10th week:
Practical: 8. lecke (Daily routine)

11th week:
Practical: 9. lecke (Free time)

12th week:
Practical: 10. lecke (Past tense 1), 11. lecke (Past tense 2)

13th week:
Practical: Revision

14th week:
Practical: Revision, End term test
Self Control Test

15th week:
Practical: Oral exam

Requirements

Requirements of the course:

Attendance
Attending language classes is compulsory. Students should not be absent from more than 10 percent of the classes. If a student is late it is considered as an absence. If a student misses more than two occasions, the final signature may be refused and the student must repeat the course.

Absentees can make up the missed classes in the same week. Maximum one language class may be made up with another group. Students have to ask for the teacher's written permission (by e-mail) 24 hours in advance. Students can attend any class (make up or regular) only if they take their coursebook with them.

The teacher evaluates active participation in each class. Students are not supposed to share coursebooks in the classes therefore if they fail to bring the coursebook to the class for the second time the attendance is refused.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and an oral exam. A further minimum requirement is the knowledge of 200 words per semester divided into 10 word quizzes. There are five word quizzes before and another five after the midterm test. If students fail or miss any word quizzes they cannot start their written test and have to take a vocabulary exam that includes all 100 words before the midterm and end term tests. A word quiz can be postponed by a week and students can take it only with their own teacher. Students can get bonus points (5-5%) by taking two extra quizzes containing 20 sentences each before the midterm and end term tests. The sentences are taken from the units of the coursebook.

The oral exam consists of a role-play from a list of situations covered in the coursebook. If students fail the oral exam, they fail the whole course. The results of the written tests and the oral exam are combined and averaged.

Based on the final score the grades are given as follows.

<table>
<thead>
<tr>
<th>Final score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-59</td>
<td>fail (1)</td>
</tr>
<tr>
<td>60-69</td>
<td>pass (2)</td>
</tr>
<tr>
<td>70-79</td>
<td>satisfactory (3)</td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
</tr>
<tr>
<td>90-100</td>
<td>excellent (5)</td>
</tr>
</tbody>
</table>

44
If the final score of the written tests is below 60, the student can take a written remedial exam once covering the whole semester’s material.

**Course book:** See the website of the Department of Foreign Languages: [ilekt.med.unideb.hu](http://ilekt.med.unideb.hu).
Audio files to the course book, oral exam topics and vocabulary minimum lists are also available on the website.

### Department of Preventive Medicine, Faculty of Public Health

**Subject:** ANATOMY
**Year, Semester:** 1st year/2nd semester
**Number of teaching hours:** 60
**Lecture:** 30
**Practical:** 30

<table>
<thead>
<tr>
<th>1st week:</th>
<th>5th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> E1: Covering and lining epithelia</td>
<td><strong>Lecture:</strong> E1: Gastrulation, formation of the mesoderm</td>
</tr>
<tr>
<td>E2: Glandular epithelium</td>
<td>E2: Differentiation of the ectoderm and mesoderm</td>
</tr>
<tr>
<td>E3: Connective tissues</td>
<td>E3: Differentiation of the entoderm, folding of the embryo</td>
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<tr>
<td><strong>Practical:</strong></td>
<td><strong>Practical:</strong></td>
</tr>
<tr>
<td>Histology of epithelial tissues</td>
<td>Histology: Blood vessels, Blood, Bone marrow, Blood formation</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>2nd week:</th>
<th>6th week:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> E1: Adipose tissue, Cartilage</td>
<td><strong>Lecture:</strong> E1: Fetal membranes, Placenta, The fetal period, Twins</td>
</tr>
<tr>
<td>E2: Bone, Bone formation</td>
<td>E2: Anatomical terminology</td>
</tr>
<tr>
<td>E3: Muscle tissue</td>
<td>E3: Osteology and arthrology – introduction</td>
</tr>
<tr>
<td><strong>Practical:</strong></td>
<td><strong>Practical:</strong></td>
</tr>
<tr>
<td>Histology: Connective tissue</td>
<td>Histology of lymphatic organs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3rd week:</th>
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</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> E1: Blood vessels</td>
</tr>
<tr>
<td>E2: Blood</td>
</tr>
<tr>
<td>E3: Bone marrow and blood formation</td>
</tr>
<tr>
<td><strong>Practical:</strong></td>
</tr>
<tr>
<td>Histology: Adipose tissue, cartilage, bone</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>4th week:</th>
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</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> E1: Histology of lymphatic organs I, E2: Histology of lymphatic organs II, E3: Fertilization, Cleavage,</td>
</tr>
<tr>
<td><strong>Practical:</strong></td>
</tr>
<tr>
<td>Histology: Bone formation, Muscle tissue</td>
</tr>
</tbody>
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<thead>
<tr>
<th>7th week:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> E1: The upper limb</td>
</tr>
<tr>
<td>E2: The lower limb</td>
</tr>
<tr>
<td>E3: The skull and the back</td>
</tr>
<tr>
<td><strong>Practical:</strong></td>
</tr>
<tr>
<td>Anatomy: Upper and lower limbs</td>
</tr>
<tr>
<td><strong>Self Control Test</strong></td>
</tr>
<tr>
<td>Week</td>
</tr>
<tr>
<td>--------</td>
</tr>
</tbody>
</table>
| 8th    | E1: Anatomy of the head and neck  
     E2: Nasal and oral cavities.  
     E3: The pharynx and the larynx | Anatomy of the head, neck and back |
| 9th    | E1: The heart I.  
     E2: The heart II.  
     E3: The trachea, lungs and pleura. | Anatomy of the heart and the respiratory system |
| 10th   | E1: Histology of the lung  
     E2: Development of the lung and heart  
     E3: Circulatory system. The vascular system of the embryo. | Histology of the respiratory system |
| 11th   | E1: Development and general organization of the alimentary system  
     E2: The oesophagus. The stomach  
     E3: Small and large intestines | Anatomy of the alimentary system |
| 12th   | E1: The pancreas. The liver I.  
     E2: The liver II. The system of the portal vein.  
     E3: The peritoneum. The retroperitoneum | Histology of the alimentary system |
| 13th   | E1: Neuroendocrine system. The hypothalamo-hypophyseal axis  
     E2: Pineal body, thyroid gland, parathyroid gland, adrenal gland  
     E3: The kidney | Histology of the endocrine system |
| 14th   | E1: The urinary system  
     E2: Male genital organs I.  
     E3: Male genital organs II. | Anatomy of the urogenital apparatus |
| 15th   | E1: Female genital organs I.  
     E2: Female genital organs II.  
     E3: Development of the urogenital system | Histology of the kidney and genital organs |

Requirements
Subject: BIOSTATISTICS
Year, Semester: 1st year/2nd semester
Number of teaching hours: 45
Lecture: 15
Practical: 30

1st week:
Lecture: The role and importance of statistical analysis
Practical: Introduction to STATA

2nd week:
Lecture: Basic data management, types of variables
Practical: Data management 1

3rd week:
Lecture: Presenting data by measures and charts
Practical: Data management 2

4th week:
Lecture: Theoretical basics of interval estimation
Practical: Theoretical basics of interval estimation

5th week:
Lecture: Estimating the population mean
Practical: Estimating the population mean

6th week:
Lecture: Theoretical basics of hypothesis testing, statistical power, error of type 1 and 2
Practical: Theoretical basics of hypothesis testing, statistical power, error of type 1 and 2

7th week:
Lecture: Statistical inference by interval estimation and/or hypothesis testing
Practical: Z-test and one-sample t-test of mean

8th week:
Lecture: Comparing two means, two-sample t-test, paired t-test
Practical: Comparing two means, two-sample t-test, paired t-test

9th week:
Lecture: Comparing more means
Practical: One-way analysis of variance (ANOVA)

10th week:
Lecture: Probability, proportion, odds
Practical: Rank tests (Mann-Whitney-Wilcoxon, Kruskal-Wallis, Wilcoxon sign-rank test)

11th week:
Lecture: Estimating a probability
Practical: Estimating a proportion by exact binomial distribution and z-test

12th week:
Lecture: Comparing two independent proportions, the relationship with measures in epidemiology
Practical: Analyzing the association of two categorical variables

13th week:
Lecture: Simple linear regression
Practical: Simple linear regression

14th week:
Lecture: Multiple linear regression
Practical: Multiple linear regression

15th week:
Lecture: Survival tables, Kaplan-Meyer analysis, estimating incidence rates and ratios
Practical: The skeleton of human body; basic terms of osteology; names of bones; an etymological approach. Word formation: adjectival suffixes

Requirements
The students are expected to know the function of biostatistics, the basic statistical methods with the presumptions of their application, the approach of biostatistical evaluation; to get experience on the collaboration with biostatistician, practical; to be able to interpret the results of basic biostatistical analyses.

Subject: **GENETICS AND MOLECULAR BIOLOGY**

Year, Semester: 1st year/2nd semester
Number of teaching hours: **15**
Lecture: **15**

<table>
<thead>
<tr>
<th>5th week:</th>
<th>transcri</th>
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</thead>
<tbody>
<tr>
<td><strong>Self Control Test</strong></td>
<td>ption to RNA. Transcriptomes. Genetic code. Non-coding RNAs.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7th week:</th>
<th>11th week:</th>
<th>12th week:</th>
<th>13th week:</th>
<th>14th week:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> Introduction to genetics. Genes as units of biological information. Transcription and translation.</td>
<td><strong>Lecture:</strong> DNA polymorphisms. Gene regulations. Epigenetics.</td>
<td><strong>Lecture:</strong> Recombinant DNA technology and the use in medicine and biology. Genomic techniques in basic science and diagnosis.</td>
<td><strong>Lecture:</strong> Inherited diseases. The genetic background of cancer development and progression.</td>
<td><strong>Lecture:</strong> The Human Genome Project. <strong>Self Control Test</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8th week:</th>
<th>9th week:</th>
<th>10th week:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> DNA replication. Genes and altes. Mendel’s laws. Dominant and recessive inheritance, understanding X chromosome inheritance.</td>
<td><strong>Lecture:</strong> Mutation and DNA repair. Inheritance of genes in population (polygeneic and monogenic) Family tree analysis. Mutagenic effects and damages. The Ames test. <strong>Self Control Test</strong></td>
<td><strong>Lecture:</strong> The structure of DNA. DNA</td>
</tr>
</tbody>
</table>

**Requirements**

The students will learn the basic terms of molecular biology and genetics as well as genomics. They will be familiar with the structure of DNA and with the way in which genes are organized within DNA molecules. It will be explained the process of gene expression and information will be given about the genetic background of common diseases and personalized therapy. Students will study about some of the areas of genetic research, including the major results and advantages of the Human Genome Project.
Subject: HEALTH PSYCHOLOGY  
Year, Semester: 1st year/2nd semester  
Number of teaching hours: 15  
Lecture: 15

1st week: 
**Lecture:** Basics of Health psychology

2nd week: 
**Lecture:** Factors influencing health status

3rd week: 
**Lecture:** Humor, Optimism, Physical Health

4th week: 
**Lecture:** Positive Psychology

5th week: 
**Lecture:** Depression, Suicide, Anxiety

6th week: 
**Lecture:** Health Anxiety, Somatization

7th week: 
**Lecture:** Pain - psychological aspects of pain, definitions and theories

8th week: 
**Lecture:** Pain - the role of psychology in pain treatment

9th week: 
**Lecture:** Burnout in helping professions

10th week: 
**Lecture:** Prevention and treatment of burnout

11th week: 
**Lecture:** Health risk behaviours: tobacco, alcohol dependence

12th week: 
**Lecture:** Health risk behaviours: drug dependence, sexual behaviour

13th week: 
**Lecture:** Health risk behaviours: gambling, internet addiction

14th week: 
**Lecture:** Health risk behaviours: eating disorders, obesity, exercise dependence

15th week: 
**Lecture:** Mindfullness (demonstration)

Subject: HISTORY OF PUBLIC HEALTH  
Year, Semester: 1st year/2nd semester  
Number of teaching hours: 15  
Lecture: 15

1st week: 
**Lecture:** Introduction and definitions

2nd week: 
**Lecture:** World epidemics in history (I)Pestis and Lepra

3rd week: 
**Lecture:** World epidemics in history(II)TB,Pox,Influenza

4th week: 
**Lecture:** Development of isolation system of infected patients

5th week: 
**Lecture:** Academic achievement of Ignác Semmelweis

6th week: 
**Lecture:** History of hand higiene in the light the present practice
**7th week:**
**Lecture:** History of public health

**8th week:**
**Lecture:** Famous people in hungarian public health

**9th week:**
**Lecture:** Hungarian public health low in 1876.

**10th week:**
**Lecture:** History of occupational health control

**11th week:**
**Lecture:** Eradication of Ancylostomiasis among mineworkers of Selmecbánya

**12th week:**
**Lecture:** History of the science of nutrition

**13th week:**
**Lecture:** Changing of habits in food consumption in Hungary

**14th week:**
**Lecture:** History of Health Promotion

**15th week:**
**Lecture:** History of teaching of healthy lifestyle

**Requirements**

To know chapters of history of public health help the students to understand the present public health practice. The history of public health highlights and sheds light on moments that influenced the development of present public health practice.

**Subject:** INTRODUCTION TO PUBLIC HEALTH

Year, Semester: 1st year/2nd semester

Number of teaching hours: 15

Lecture: 15

1. **week:** Allocating public health in the medical and health sciences, evolution and development
2. **week:** Definition of health and its determinants
3. **week:** Public health: successes, failures and challenges in the 21st century
4. **week:** Monitoring and analysing health state: options and methods
5. **week:** Relation between health and economy
6. **week:** Theory and practice in health promotion
7. **week:** Levels of prevention
8. **week:** Organizational structure for public health services in Hungary
9. **week:** Global indicators of health state I.
10. **week:** Global indicators of health state II.
11. **week:** Public health databases
12. **week:** North Karelia Program
13. **week:** Screening programs
14. **week:** Public health programmes
15. **week:** WHO Health 2020
Requirements
Introducing the principles and approach of public health sciences and evidence-based public health, sources of information and data that provide evidence for planning/organizing public health activity, assigning health objectives and judging their efficiency and materialization.

Division of Cell Biology

Subject: BIOLOGY, CELL BIOLOGY
Year, Semester: 1st year/2nd semester
Number of teaching hours: 30
Lecture: 30

1st week:
Lecture: 1-2. Cell structure

2nd week:
Lecture: 3-4. Chemical Compounds of the Cell

3rd week:
Lecture: 5-6. Membranes, membrane transport

4th week:
Lecture: 7-8. Ion Channels, Membrane Potential, Calcium homeostasis

5th week:
Lecture: 9-10. Vesicular Structures and Transport

6th week:
Lecture: Self Control Test 1
Self Control Test

7th week:
Lecture: 13-14. Signal Transduction

8th week:
Lecture: 15-16. The Nucleus, DNA and Chromatin Structure

9th week:
Lecture: 17-18. Cell Cycle, Meiosis, Mitosis

10th week:
Lecture: 19-20. Mitochondrion, Cell-Cell Contacts
Self Control Test

11th week:
Lecture: 21-22. Cytoskeleton, Motility

12th week:
Lecture: self control test 2.

13th week:
Lecture: 25-26. consultation

14th week:
Lecture: pre-exam
Self Control Test

15th week:
Lecture: 29-30. consultation

Requirements
Signing the lecture book: Attendance on 30% of lectures is compulsory. Attendance on lectures is highly recommended, for acquiring the knowledge required to write a successful test and to pass the course. Lectures are the best sources to obtain and structure the necessary information. During the consultations students can ask their questions related to the topic of the lectures discussed before. Writing the tests is not compulsory. Making up a missed test is not possible. Please have some kind of ID with picture (student card, passport, driving license, etc.) with you. Without that, it is not
allowed to write the test.

All self-controls (and exams) consist of two parts. The first part is a Minimal (M, 15 minutes), the second is an Extended (E, 30 minutes) part, which are evaluated jointly. Part M contains True/False type questions and basic definitions (based on the key words). Students must start with part M and it will be collected after 15 minutes. Part E contains True/False, triple True/False and a series of mini-essays based on the key words provided during the semester. Part E is only evaluated if the score on part M is at least 50%.

Self-control scores are calculated along the formulas below (percentage results on the test and essay parts are denoted by M and E).

First self-control: if \( M=50\% \) or more, \( D_1=M+E \)
Second self-control: if \( M=50\% \) or more, \( D_2=M+E \)

Grade based on self-controls is offered according to the final score (F), which is calculated as 
\[
F=\frac{(D_1+D_2)}{4} \quad \text{(after the 2nd test)}.
\]

Excellent (5): above 85%
Good (4): between 75-84%
Satisfactory (3): between 55-74%
Pass (2): between 45-54%
Fail (1): below 45%

If this score does not convert to a passing, or better grade, we still offer bonus points:
\[
B=\frac{(D_1+D_2)}{40}.
\]

In general, it is a good strategy to prepare for the self-controls, as it is possible to pass the course by preparing for half of the whole material at a time, and, even if a passing grade is not offered, bonuses are allocated that help improve the final grade either at the pre-exam or at the exams.

Institute of Behavioural Sciences, Faculty of Public Health

Subject: HEALTH SOCIOLOGY
Year, Semester: 1st year/2nd semester
Number of teaching hours: 30
Lecture: 30

1st week:
**Lecture:** Introduction to sociology of health, revision of basic sociological concepts and the sociological perspective

2nd week:
**Lecture:** Theories of disease causation, the social determinants of health and disease

3rd week:
**Lecture:** Society and changing patterns of disease, historical and cross regional perspectives.

4th week:
**Lecture:** Sociology and public health, economy
and health policy. The sociology of poverty-
inequality and health

5th week:
Lecture: Social structure and health-gender, age
and ethnicity

6th week:
Lecture: Case studies : morbidity and mortality
in Nigeria, China , Hungary and the UK from the
sociological perspective

7th week:
Lecture: Health behaviour and illness behaviour,
the case of chronic illness

8th week:
Lecture: The sociology of health care
organisations

9th week:
Lecture: Informal health care, community care
and self help

10th week:
Lecture: Medicalisation

11th week:
Lecture: Deviance, sick role, anomie and stigma

12th week:
Lecture: Sociological research methods,
measuring health outcomes, the anatomy of
research articles

13th week:
Lecture: The socio-cultural aspects of the AIDS
epidemic in Africa

14th week:
Lecture: Summary, conclusions

15th week:
Lecture: Final test
Self Control Test

Requirements

Introduction to sociology of health, basic sociological concepts, the sociological perspective;
Society and changing patterns of disease, historical and cross regional perspective; Social
determinants of health and disease; Sociology and public health, economy and health policy ; The
sociology of poverty- inequality and health ; Social structure and health-gender and age; Social
structure and health- ethnicity and religion; Case studies : morbidity and mortality in Nigeria, India
, Hungary and Saudi Arabia from the sociological perspective; Health behaviour and illness
behaviour, the case of chronic illness; The sociology of health care organisations; Informal health
care, community care and self help ; Deviance, sick role, anomie and stigma; Sociological research
methods, measuring health outcomes, the anatomy of research articles
**Department of Foreign Languages**

**Subject: PROFESSIONAL HUNGARIAN I.**
Year, Semester: 3rd year/2nd semester
Number of teaching hours: **60**
Practical: **60**

<table>
<thead>
<tr>
<th>1st week:</th>
<th>9th week:</th>
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<tr>
<td><strong>Practical:</strong> 1. fejezet: Emlékszik?</td>
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<tr>
<td><strong>Practical:</strong> 1. fejezet: Emlékszik? / Tegezés-Önözés</td>
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<tr>
<th>3rd week:</th>
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<tr>
<td><strong>Practical:</strong> 2. fejezet: Tegezés-Önözés</td>
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<tr>
<td><strong>Practical:</strong> 3. fejezet: Élelmiszerek 1.</td>
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<tr>
<td><strong>Practical:</strong> 4. fejezet: Élelmiszerek 2.</td>
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<tr>
<td><strong>Practical:</strong> 5. fejezet: Étkezések, étteremben 1.</td>
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<th>15th week:</th>
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<tr>
<td><strong>Practical:</strong> 6. fejezet: Étkezések étteremben 2.</td>
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<th>8th week:</th>
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<tr>
<td><strong>Practical:</strong> 7. fejezet: Összefoglalás, midterm test</td>
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### Requirements

**Requirements of the course:**

**Attendance**

Attending language classes is compulsory. Students should not be absent from more than 10 percent of the classes. If a student is late it is considered as an absence. If a student misses more than two occasions, the final signature may be refused and the student must repeat the course.

Absentees can make up the missed classes in the same week. Maximum one language class may be made up with another group. Students have to ask for the teacher's written permission (by e-mail) 24 hours in advance. Students can attend any class (make up or regular) only if they take their coursebook with them.

The teacher evaluates active participation in each class. Students are not supposed to share coursebooks in the classes therefore if they fail to bring the coursebook to the class for the second time the attendance is refused.

**Testing, evaluation**

In each Hungarian language course, students must sit for 2 written language tests and an oral exam. A further minimum requirement is the knowledge of 200 words per semester divided into 10
word quizzes. There are five word quizzes before and another five after the midterm test. If students fail or miss any word quizzes they cannot start their written test and have to take a vocabulary exam that includes all 100 words before the midterm and end term tests. A word quiz can be postponed by a week and students can take it only with their own teacher. Students can get bonus points (5-5%) by taking two extra quizzes containing 20 sentences each before the midterm and end term tests. The sentences are taken from the units of the coursebook.

The oral exam consists of a role-play from a list of situations covered in the coursebook. If students fail the oral exam, they fail the whole course. The results of the written tests and the oral exam are combined and averaged. Based on the final score the grades are given as follows.

<table>
<thead>
<tr>
<th>Final score</th>
<th>Grade</th>
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<tbody>
<tr>
<td>0-59</td>
<td>fail (1)</td>
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<tr>
<td>60-69</td>
<td>pass (2)</td>
</tr>
<tr>
<td>70-79</td>
<td>satisfactory (3)</td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
</tr>
<tr>
<td>90-100</td>
<td>excellent (5)</td>
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</table>

If the final score of the written tests is below 60, the student once can take a written remedial exam once covering the whole semester’s material.

Course book: See the website of the Department of Foreign Languages: ilekt.med.unideb.hu.

Department of Health Management and Quality Assurance, Faculty of Public Health

Subject: INTRODUCTION TO LAW I.
Year, Semester: 2nd year/1st semester
Number of teaching hours: 30
Lecture: 15
Seminar: 15

1st week:
Lecture: Concept of law, evolution of legal thinking
Seminar: Evolution of legal thinking

2nd week:
Lecture: Legal norm
Seminar: Branches of law

3rd week:
Lecture: Legal relationship
Seminar: Legislation

4th week:
Lecture: Legal liability
Seminar: Types of legislation

5th week:
Lecture: Law system
Seminar: Applicability, enforceability, validity

6th week:
Lecture: The state
Seminar: Branches of power

7th week:
Lecture: Force of Law
Seminar: Sovereignty

8th week:
Lecture: Legal interpretation
Seminar: Government control
9th week:
Lecture: Law enforcement
Seminar: Ministers, members of government

10th week:
Lecture: Theories of state formation
Seminar: Inviolability

11th week:
Lecture: The constitutional court
Seminar: Constitutionality

12th week:
Lecture: State functions
Seminar: Protection of fundamental rights

13th week:
Lecture: The judicial system
Seminar: Judges

14th week:
Lecture: Three branches of government
Seminar: Compliance and violation of law

15th week:
Lecture: The institutions of collective labour law
Seminar: Subjects and content

Requirements

Obtaining general legal knowledge and defining the role of law. To present the legal systems, the law, the functioning of the state, the role of the legal entities. Overview of the branches of power and the structure of the state, its institutional system, principles of operation and legal framework, knowledge of different legal sources. Providing comprehensive knowledge on law enforcement, enforcement, and the role of the courts.

Department of Immunology

Subject: IMMUNOLOGY
Year, Semester: 2nd year/1st semester
Number of teaching hours: 30
Lecture: 30

1st week:
Lecture: Tissues/organs of the immune system:
Functions of central lymphoid organs. Functions of peripheral lymphoid organs. Features of antigens. Cellular and humoral immunity - Direct and indirect interactions.

2nd week:
Lecture: Cellular component of the immune system: The development of the major lineages of blood cells.

3rd week:

4th week:
Lecture: T cells; types and functions:
Development of T-lymphocytes, TCR variability. Structure of TCR. Cytotoxic T cells. Helper and regulatory T cells.

5th week:

6th week:
Lecture: Triggering of immune response by B

7th week:
**Lecture:** Structure of antibodies: Production of various antibody isotypes and their functions. Affinity maturation, somatic recombination, isotype switching.

8th week:
**Lecture:** The collaboration between innate and adaptive immunity – II. Professional antigen presenting cell mediated T cell polarization. Effect of cytokines on innate immune response.

9th week:
**Lecture:** Effector functions of T cells. T cell priming and activation of effector T lymphocytes. Cooperation of T and B cells. T cell-independent and T cell-dependent B cell activation.

10th week:
**Lecture:** The immune response to intracellular pathogens. Immune response to viral infection. The immune response to extracellular pathogens.

11th week:
**Lecture:** Inflammation. Chemokine mediated migration of leukocytes.

12th week:
**Lecture:** Immunological memory.

13th week:
**Lecture:** Passive and active immunisation.

14th week:
**Lecture:** Hypersensitivity reactions.

15th week:
**Lecture:** Consultation

**Requirements**

During the Basic Immunology course we discuss the components and the fundamental mechanisms of the immune system, such as recognition and effector functions. We specify the natural immune system, the operation of the B and T cells. We characterize the immune reactions against intercellular, extracellular pathogens. We summarize the main reasons behind the development of the autoimmunity and the allergy.

**Department of Medical Imaging**

Subject: **BASIC BIOCHEMISTRY**
Year, Semester: 2nd year/1st semester
Number of teaching hours: 30
Lecture: 15
Seminar: 15

1st week:

2nd week:
Glycolytic pathway and its regulation.
Gluconeogenesis.

3rd week:
Lecture: Carbohydrate metabolism II. Glycogen in liver and muscle. Degradation and synthesis of glycogen. Regulation of glycogen synthesis and degradation.

4th week:

5th week:

6th week:

7th week:

8th week:
Self Control Test (topics of 1st-7th weeks)

9th week:

10th week:

11th week:

12th week:

13th week:

14th week:
Vitamins: structure and biochemical functions. Relationship between the biochemical functions and the symptoms of deficiency.

15th week:
Lecture: self-control test Week 9-14.
Self Control Test (topics of 7-14th weeks)

Requirements

Achievement during the semester: will be evaluated in term of points. During the semester points can be collected for the self-control tests from the material of the lectures. Self control tests consist of simple and multiple choice test questions and assay questions. Grade will be offered on the base of the collected points for all those students, who collected at least 50% of points: pass (2) for 50%-64%; satisfactory (3) for 65%-74%; good (4) for 75%-85%; excellent (5) for 86%-100%. Those students who want to get a better grade can take an exam. Those, who did not collect 50%, have to take a written exam in the exam period.
The end of semester exam is a written one and consists of similar test and assay questions to those of self-control tests. 50 percent is needed to get a passing mark, and the grade increases as shown above.

Attendance at the lectures is highly recommended. Attendance at seminars is mandatory. The signature of the Lecture Book is refused if a student is absent from more than 2 seminars. Seminars will be given by the lecturer (or his/her colleague) based on the previous week’s lecture material. Additional possibilities for consultation are provided by the lecturer on Thursdays between 15 and 16 pm. in her office.

Lecture presentations with short explanations are available on the web page of: https://elearning.med.unideb.hu/Faculty of Medicine/ Department of Medical Imaging/Radiológia Nem Önálló Tanszék-Biokémia/Basic Biochemistry

Department of Medical Microbiology

Subject: MICROBIOLOGY I.
Year, Semester: 2nd year/1st semester
Number of teaching hours: 30
Lecture: 30

Subject: MICROBIOLOGY II.
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 30
Lecture: 30
Seminar: 30

1st week:
Lecture: The microbial word. Cell-mediated and antibody-mediated (humoral) immunity. Active and passive immunization

viral infections. Sterilization and disinfection

3rd week:

2nd week:
Lecture: Laboratory diagnosis of bacterial and
4th week:
Lecture: Overview of the major Gram-positive bacteria

5th week:
Lecture: Overview of the major and Gram-negative bacteria

6th week:
Lecture: Bacterial respiratory tract diseases. Skin and soft tissue infections caused by bacteria

7th week:
Lecture: Sexually transmitted bacterial diseases. Central nervous system diseases caused by bacteria

8th week:
Lecture: General mycology. Medically important fungi

9th week:
Lecture: The structure and classification of viruses. The pathogenesis of viral diseases

10th week:
Lecture: Respiratory tract infections caused by viruses

11th week:
Lecture: Agents of viral gastroenteritis. Hepatitis viruses

12th week:
Lecture: Agents of viral skin rash. Congenital virus infections

13th week:
Lecture: The protozoal diseases

14th week:
Lecture: Helminths. Ectoparasites

15th week:
Lecture: Consultation

Requirements

The students are required to attend the lectures.

Examination

End semester examination consists of an oral test. The student's performance will be assessed on a five-grade scale.

Department of Physiology

Subject: PHYSIOLOGY
Year, Semester: 2nd year/1st semester
Number of teaching hours: 45
Lecture: 30
Seminar: 15

1st week:
Lecture: Membrane transport mechanisms; cell-cell communication; humoral regulation of cell function; Ligands, ligand-binding receptors, signalisation pathways. Basis of the excitatory processes, resting potential, local response, action potential. Propagation of the action potential, synaptic function.
Seminar: Introduction to Moodle system.
Course requirements.
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Seminar</th>
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<tbody>
<tr>
<td>2nd week</td>
<td><strong>Compartmentalization of body fluids</strong>; blood as a circulating body fluid; plasma and formed elements (red blood cells, white blood cells, platelets). Blood typing. Haemostasis.</td>
<td><strong>Membrane transport mechanisms, electric characteristics of the cell membrane. Synaptic function.</strong></td>
</tr>
<tr>
<td>3rd week</td>
<td><strong>Electrical and contractile properties of the heart</strong>; impulse generation and conduction; basics and diagnostic significance of electrocardiography; the heart as a pump; the cardiac cycle.</td>
<td><strong>Compartmentalization of body fluids. The blood as a circulating body fluid. Homeostasis.</strong></td>
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<tr>
<td>4th week</td>
<td><strong>Characteristics of peripheral circulation</strong>; principles of haemodynamics; functional characteristics of blood vessels; vascular tone; main determinants of arterial blood pressure.</td>
<td><strong>Cardiac functions</strong></td>
</tr>
<tr>
<td>5th week</td>
<td><strong>Regulation of visceral functions</strong>; common and different features of sympathetic and parasympathetic regulation; characteristics of the connections between autonomic nerves and the innervated structures. Integrated function of the sympathetic nervous system and the adrenal medulla. Neural and humoral regulation of the cardiovascular system.</td>
<td><strong>Characteristics of the peripheral circulation</strong></td>
</tr>
<tr>
<td>6th week</td>
<td><strong>Respiratory physiology</strong>; mechanics of mechanics of breathing; alveolar ventilation; gas transport in the blood; neural and chemical control of breathing</td>
<td><strong>2nd mid-semester test</strong></td>
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<tr>
<td></td>
<td><strong>Self Control Test (Topics: cell physiology, blood, circulation)</strong></td>
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<tr>
<td>7th week</td>
<td><strong>Function of the digestive system.</strong></td>
<td><strong>Function of the respiratory system</strong></td>
</tr>
<tr>
<td>8th week</td>
<td><strong>Nutrition (food requirements, regulation of food intake)</strong>; energy balance, thermoregulation.</td>
<td><strong>Function of the digestive system.</strong></td>
</tr>
<tr>
<td>9th week</td>
<td><strong>General aspects of renal function</strong>; glomerular filtration; types of tubular transport processes; characteristic parameters of the renal function</td>
<td><strong>Quantitative and qualitative aspects of diet. Thermoregulation and energy balance.</strong></td>
</tr>
<tr>
<td>10th week</td>
<td><strong>Hormonal regulation; paracrine and endocrine mechanisms</strong>; hypothalamo-hypophyseal system; neurohormones and tropic hormones</td>
<td><strong>2nd mid-semester test</strong></td>
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<tr>
<td></td>
<td><strong>Self Control Test (Topics: respiration, gastrointestinal system, kidney)</strong></td>
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<td>11th week</td>
<td><strong>Thyroid hormones (T3 and T4); endocrine regulation of basal metabolic rate. Physiological effects of corticosteroids. Significance of the ionized calcium concentration in the blood; regulation of calcium handling. PTH and calcitonin.</strong></td>
<td><strong>Basics of the hormonal regulation.</strong></td>
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<td>12th week</td>
<td><strong>Endocrine function of the pancreas</strong>; significance and complex hormonal regulation of blood glucose level</td>
<td><strong>Complex hormonal regulation of the intermediate metabolism.</strong></td>
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<td>13th week</td>
<td><strong>Sexual hormones. Overview of the complex neural regulation. Somatic and autonomic nervous system; voluntary and reflex</strong></td>
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regulation

**Seminar:** Osteoporosis. Abnormal blood glucose level.

**14th week:**
**Lecture:** Sensory function of the nervous system. Physiological basis of vision and hearing. Motor function of nervous system: function of skeletal muscles, neural regulatory mechanisms.

**Seminar:** Function of skeletal muscles, neural regulatory mechanisms

**15th week:**
**Lecture:** Summary.
**Seminar:** 3rd mid-semester test
**Self Control Test (Topics: hormonal and neural regulation)**

### Requirements

**Signature of Lecture Book**

Attendance at lectures and seminars is compulsory. The signature of the Lecture Book may be refused for the semester in the cases of absences from more than two seminars.

**Evaluation during the semester**

The knowledge of students will be tested 3 times per semester using a written test system (mid-semester tests). Participation is compulsory.

**Examination**

The semester is closed by the end-semester exam (ESE) covering the topics of all lectures, seminars. It is not compulsory to take the ESE if the average of mid-semesters test reaches or higher than the passing limit (55%) and none of the individual tests' results are less than 40%.

The mark based on the average score of mid-semester tests is calculated according to the following table:

- 0 – 54 % fail (1)
- 55 – 64 % pass (2)
- 65 – 74 % satisfactory (3)
- 75 – 84 % good (4)
- 85 – 100 % excellent (5)

If one is not satisfied with this result, (s)he may participate in ESE during the examination period. A and B chances are written tests, C chance is oral presentation.

Actual information is available on the website of the Department of Physiology:

The contact hours are completed by an e-learning module containing the course material and assessments.
The e-learning module is available at: https://elearning.med.unideb.hu/course/view.php?id=434

The e-learning module is aimed to support the effective learning process. The lectures cannot be substituted by e-learning activity. You can collect bonus points by fulfilment of different tasks in the module.
10% of the scores can be achieved in the e-learning module. The bonus points (maximum 10% of total) are added to the average score achieved in mid-term tests or ESE, if there is no performance below 40% and the average score is at least 55% without bonus points.

Department of Preventive Medicine, Faculty of Public Health

Subject: **BASIC EPIDEMIOLOGY**  
Year, Semester: 2nd year/1st semester  
Number of teaching hours: **30**  
Lecture: **15**  
Seminar: **15**

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<thead>
<tr>
<th>1st week:</th>
<th>9th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Epidemiology — Definition, functions, and characteristics</td>
<td><strong>Lecture:</strong> Sources of error</td>
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<tr>
<td><strong>Seminar:</strong> Epidemiologic milestone</td>
<td><strong>Seminar:</strong> Control for errors</td>
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<tr>
<th>2nd week:</th>
<th>10th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Studying populations - basic demography</td>
<td><strong>Lecture:</strong> Multicausality — Confounding</td>
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<tr>
<td><strong>Seminar:</strong> Demographic measures</td>
<td><strong>Seminar:</strong> Confounding factor</td>
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<th>11th week:</th>
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<tr>
<td><strong>Lecture:</strong> The Phenomenon of Disease</td>
<td><strong>Lecture:</strong> Multicausality — Effect modification</td>
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<tr>
<td><strong>Seminar:</strong> The Phenomenon of Disease</td>
<td><strong>Seminar:</strong> Effect modifiers</td>
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<tr>
<td><strong>Lecture:</strong> Measuring Disease and Exposure</td>
<td><strong>Lecture:</strong> Multicausality — Analysis approaches</td>
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<tr>
<td><strong>Seminar:</strong> Measuring Disease and Exposure</td>
<td><strong>Seminar:</strong> Basic analitic measures</td>
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<tr>
<td><strong>Lecture:</strong> Standardization of rates and ratios</td>
<td><strong>Lecture:</strong> Data analysis and interpretation</td>
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<tr>
<td><strong>Seminar:</strong> Practicing standardization</td>
<td><strong>Seminar:</strong> Data interpretation</td>
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<th>6th week:</th>
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<tr>
<td><strong>Lecture:</strong> Relating risk factors</td>
<td><strong>Lecture:</strong> Practical aspects of epidemiologic research</td>
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<tr>
<td><strong>Seminar:</strong> Measures of Risk factors to health</td>
<td><strong>Seminar:</strong> Study design</td>
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<tr>
<th>7th week:</th>
<th>15th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Analytic study design</td>
<td><strong>Lecture:</strong> Role of epidemiology</td>
</tr>
<tr>
<td><strong>Seminar:</strong> Analytic study designs</td>
<td><strong>Seminar:</strong> Concluding remarks</td>
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<tr>
<th>8th week:</th>
<th><strong>Practical:</strong> Needs for epidemiological research and the utilization of their results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lecture:</strong> Causal inference</td>
<td><strong>Lecture:</strong> Causal inference</td>
</tr>
</tbody>
</table>
**Requirements**

The students learn how epidemiologists think about health and the factors that affect it, and how epidemiologists approach studying them. The central objective of the course to explain the basic concepts and perspectives of the field.

Subject: **HEALTH INFORMATICS II.**  
Year, Semester: 1st year/2nd semester  
Number of teaching hours: **30**  
Lecture: **10**  
Practical: **20**

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td><strong>Lecture:</strong> The basics of nosology (classification of diseases)</td>
<td></td>
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<tr>
<td>2nd week</td>
<td><strong>Practical:</strong> The most important classifications of health-care and public health: BNO, WHO, SNOWMED</td>
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<tr>
<td>3rd week</td>
<td><strong>Practical:</strong> The most important classifications of health-care and public health: BNO, WHO, SNOWMED</td>
<td></td>
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<tr>
<td>4th week</td>
<td><strong>Lecture:</strong> Health-care administration. Health-care information systems and databases</td>
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<tr>
<td>5th week</td>
<td><strong>Practical:</strong> Data-flow in health-care</td>
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<tr>
<td>6th week</td>
<td><strong>Practical:</strong> Primary care, specialty care, hospital, public health information systems</td>
<td></td>
</tr>
<tr>
<td>7th week</td>
<td><strong>Practical:</strong> Library information systems</td>
<td></td>
</tr>
</tbody>
</table>
| 8th week   | **Practical:** TEST  
**Self Control Test** |  
| 9th week   | **Practical:** Some use of library in formationsystemdetails: MEDLINE, PUBMED, CD-ROM, and multimedia systems |  
| 10th week  | **Lecture:** Information systems in public health, Traditional and electronic sources of information, studies and databases in public health |  
| 11th week  | **Practical:** Traditional sources of information, studies and databases of public health |  
| 12th week  | **Practical:** Electronic sources of information, studies and databases of public health |  
| 13th week  | **Lecture:** The issues of privacy, legal and ethical rules, Basics of Cryptography |  
| 14th week  | **Practical:** Physical and logical techniques and solutions of the protection of IT systems |  
| 15th week  | **Lecture:** TEST  
**Self Control Test** |  

**Requirements**

Information collection: defining types of information sources in terms of their currency, format (for
example a review vs. an original article), authority, relevance, and availability, new directions in information search
How to write an academic paper: structure and main characteristics in an academic paper
Role and structure of the University Library of Debrecen.
Search for information: Distinguish the different source types, evaluate the information quality. Perform database searches using logical operators (Boolean), in a manner that reflects understanding of medical language, terminology and the relationships among medical terms and concepts
How to search information in the library catalogue
Search in Medline (PubMed) and other relevant bibliographic databases
Identify and acquire full-text electronic documents
How to reference: preparing bibliographies, managing bibliographic data with reference management softwares
Health care basics. Health care in different countries. UN, WHO, worldwide organizations.
Structure and types of health care systems’. Patient, doctor, nurse. Medical tasks, medical data
Differences, measurements: collecting data, building spreadsheets, charts. Public Health worldwide – What to do, how to do?

Subject: PUBLIC HEALTH MEDICINE I.
Year, Semester: 2nd year/1st semester
Number of teaching hours: 60
Lecture: 30
Practical: 30

1st week:
Lecture: Clinical diagnosis History, physical examination, investigations Laboratory diagnosis, Imaging techniques, Functional tests

2nd week:
Lecture: Diseases of the circulatory systemIschaemic heart disease, AMI, Hypertension and its complications, Thromboembolic diseases, Stroke

3rd week:
Lecture: Haematological diseasesAnaemia, myeloproliferative diseases

4th week:
Lecture: NeoplasiaBreast, lung and throat cancers, Colorectal cancers, Cervical, uterine, and ovarian cancers, Stomach cancer, Prostate carcinoma, Cancers of the mouth, Kidney tumours, Scrotal tumours, Malignant haematologic diseases

5th week:
Lecture: Diseases of the digestive systemDiseases of the stomach. Diseases of the liver, gall bladder and pancreas

6th week:
Lecture: Metabolic diseasesDiabetes, Hyperlipidaemia, Gout, Porphyria

7th week:
Lecture: Diseases of the pulmonary systemBronchial asthma, Chronic obstructive pulmonary disease

8th week:
Lecture: Infectious diseasesAcute and chronic infectious diseases
9th week:
**Lecture:** Diseases of the musculoskeletal system
Bones, joint and muscular diseases (with emphasis on osteoporosis)

10th week:
**Lecture:** Endocrinological diseases

11th week:
**Lecture:** Diseases of the kidney

12th week:
**Lecture:** Neurological diseases

13th week:
**Lecture:** Psychiatry
Psychosis, schizophrenia, alcoholism, delirium.

14th week:
**Lecture:** Paediatric diseases
Dental diseases

15th week:
**Lecture:** The fundamentals of surgery
The operating theatre and surgical procedures

**Requirements**
Clinical diagnosis; Diseases of the circulatory system; Haematological diseases; Neoplasia;
Diseases of the digestive system; Metabolic diseases; Diseases of the pulmonary system; Infectious
diseases; Diseases of the musculoskeletal system; Endocrinological diseases; Diseases of the
kidney; Neurological diseases; Psychiatry; Paediatric diseases; Dental diseases; The fundamentals
of surgery

**Department of Foreign Languages**

**Subject:** PROFESSIONAL HUNGARIAN II.
**Year, Semester:** 4th year/1st semester
**Number of teaching hours:** 60
**Practical:** 60

1st week:
**Practical:** 1. fejezet: Emlékszel?

2nd week:
**Practical:** 1. fejezet: Emlékszel? / 2. fejezet: Téstrészek 1.

3rd week:
**Practical:** 2. fejezet: Téstrészek 2.

4th week:
**Practical:** 3. fejezet: Tünetek

5th week:
**Practical:** 4. fejezet: Gyógyszerek

6th week:
**Practical:** 5. fejezet: Klinikák és szakorvosok

7th week:
**Practical:** 6. fejezet: Lassítsunk egy kicsit!

8th week:
**Practical:** 7. fejezet: Összefoglalás, midterm test

9th week:
**Practical:** 8. fejezet: Szoktál kanapészörfölni?

10th week:
**Practical:** 9. fejezet: Jó és rossz szokások

11th week:
**Practical:** 10. fejezet: Instrukció

12th week:
**Practical:** 11. fejezet: Tessék mondani!
Requirements

Requirements of the course:

Attendance
Attending language classes is compulsory. Students should not be absent from more than 10 percent of the classes. If a student is late it is considered as an absence. If a student misses more than two occasions, the final signature may be refused and the student must repeat the course.

Absentees can make up the missed classes in the same week. Maximum one language class may be made up with another group. Students have to ask for the teacher's written permission (by e-mail) 24 hours in advance. Students can attend any class (make up or regular) only if they take their coursebook with them.

The teacher evaluates active participation in each class. Students are not supposed to share coursebooks in the classes therefore if they fail to bring the coursebook to the class for the second time the attendance is refused.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and an oral exam. A further minimum requirement is the knowledge of 200 words per semester divided into 10 word quizzes. There are five word quizzes before and another five after the midterm test. If students fail or miss any word quizzes they cannot start their written test and have to take a vocabulary exam that includes all 100 words before the midterm and end term tests. A word quiz can be postponed by a week and students can take it only with their own teacher. Students can get bonus points (5-5%) by taking two extra quizzes containing 20 sentences each before the midterm and end term tests. The sentences are taken from the units of the coursebook.

The oral exam consists of a role-play from a list of situations covered in the coursebook. If students fail the oral exam, they fail the whole course. The results of the written tests and the oral exam are combined and averaged.

Based on the final score the grades are given as follows.

<table>
<thead>
<tr>
<th>Final score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-59</td>
<td>fail (1)</td>
</tr>
<tr>
<td>60-69</td>
<td>pass (2)</td>
</tr>
<tr>
<td>70-79</td>
<td>satisfactory (3)</td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
</tr>
<tr>
<td>90-100</td>
<td>excellent (5)</td>
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</tbody>
</table>

If the final score of the written tests is below 60, the student once can take a written remedial exam once covering the whole semester’s material.

Course book: See the website of the Department of Foreign Languages: ilekt.med.unideb.hu.
Subject: INTRODUCTION TO LAW II.
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 30
Lecture: 15
Seminar: 15

1st week:
Lecture: Basic laws, the Fundamental law
Seminar: Equality before the law

2nd week:
Lecture: Civil, political and personal rights
Seminar: Discrimination

3rd week:
Lecture: Personality rights
Seminar: Protection of reputation

4th week:
Lecture: Introduction to business law
Seminar: Business ethics

5th week:
Lecture: Corporations
Seminar: Starting a business

6th week:
Lecture: Property law
Seminar: Proprietary, possession

7th week:
Lecture: Nature of real property
Seminar: Nonpossessory interests

8th week:
Lecture: Sale of Property
Seminar: Adverse possession

9th week:
Lecture: Estates in real property
Seminar: Land use regulation

10th week:
Lecture: Introduction to contracts
Seminar: Contractual Capacity

11th week:
Lecture: Liability and negligence
Seminar: Sales and product liability

12th week:
Lecture: Valid and void agreements
Seminar: Conclusion to contracts

13th week:
Lecture: Types of contracts
Seminar: Contracts in writing

14th week:
Lecture: Agency
Seminar: Relationship of principal and agent

15th week:
Lecture: Law of torts
Seminar: Intentional torts

Requirements

Obtaining general legal knowledge and defining the role of law. To present the legal systems, the law, the functioning of the state, the role of the legal entities. Understanding the rights of individuals, the importance of different legal relationships and the presentation of the general principles of civil law and legal institutions, the legal relevance of property, and the importance of contracts in our everyday lives.
Department of Medical Imaging

Subject: BIOCHEMISTRY
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 15
Lecture: 10
Seminar: 5

1st week:  
**Lecture:** Biochemistry of the liver. Biotransformation. Ethanol metabolism, biochemical consequences of ethanol consumption.  
**Seminar:** Introduction

2nd week:  
**Seminar:** Biochemistry of liver, biotransformation

3rd week:  
**Lecture:** Cellular, humoral and vascular aspects of blood clotting. Structure, activation, adhesion and aggregation of thrombocytes. Classification of blood clotting factors and their role. Blood clotting in the test tube and in the body. Role of thrombocytes and the vascular endothel. Limiting factors, inhibitors and activators of blood coagulation. Fibrinolysis.  
**Seminar:** Metabolism iron, hem

4th week:  
**Lecture:** Biochemistry of the extracellular matrix: function, main components: glucosaminoglycans and proteoglycans, collagens, elastin, adhesion proteins. Synthesis and degradation of collagens.  
**Seminar:** Biochemistry of ECM and blood clotting

5th week:  
**Seminar:** Sport biochemistry  
**Self Control Test**

**Requirements**

**Compulsory reading:** Lecture presentations with short explanations are available on the web page of [https://elearning.med.unideb.hu/Faculty of Medicine/Department of Diagnostic Imaging/Radiológia Nem Önálló Tanszék-Biokémia/Biochemistry](https://elearning.med.unideb.hu/Faculty of Medicine/Department of Diagnostic Imaging/Radiológia Nem Önálló Tanszék-Biokémia/Biochemistry)

**Achievement during the semester** will be evaluated in term of points. During the semester points can be collected for the self-control test from the material of the lectures. Self control test consist of simple and multiple choice test questions and assay questions. **Grade will be offered** on the base of the collected points for all those students, who collected at least 50% of points: pass (2) for 50%-64%; satisfactory (3) for 65%-74%; good (4) for 75%-85%; excellent (5) for 86%-100%. Those students who want to get a better grade can take an exam. Those, who did not collect 50% have to take a written exam in the exam period. **The end of semester exam is a written one** and consists of similar test and assay questions to those of self-control test. 50 percent is needed to get a passing mark, and the grade increases as shown
above.

Requirements:
Attendance at the lectures is highly recommended. Attendance at seminars is mandatory. The signature of the Lecture Book may be refused if a student is absent from more than 1 seminars.

Prerequisites: Basic Biochemistry

Department of Preventive Medicine, Faculty of Public Health

Subject: ENVIRONMENTAL HEALTH
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 60
Lecture: 30
Seminar: 30

1st week:
Lecture: Scope of environmental health
Seminar: Introduction to the seminar work, requirement of the subjects, instructions for preparing power point presentation by the 14th week of the semester

2nd week:
Lecture: Introduction to toxicology
Seminar: The disaster of Seveso – case study

3rd week:
Lecture: Air pollution and health
Seminar: The London smog of December 1952 – case study

4th week:
Lecture: Water pollution and health
Seminar: Environmental arsenic poisoning – case study

5th week:
Lecture: Impacts of soil contamination on human health
Seminar: Environmental cadmium poisoning – case study

6th week:
Lecture: Health effects of non-ionising radiation and electromagnetic fields
Seminar: Mobile phones use and brain cancer risk

7th week:
Lecture: Health effects of ionising radiation and radioactive substances
Seminar: Nuclear accidents and protecting the general public

8th week:
Lecture: Health effects of noise and vibration
Seminar: Midterm test

9th week:
Lecture: Health effects of noise and vibration
Practical: Chemical and microbiological examination of drinking water (laboratory practice for small group)

10th week:
Lecture: Principles of occupational health
Practical: Chemical and microbiological examination of drinking water (laboratory practice for small group)

11th week:
Lecture: Hazardous substances in the environment
Seminar: Environmental PCB poisoning – case study
12th week:
**Lecture:** Body defence against the adverse effects of environmental exposures  
**Seminar:** Environmental lead poisoning – case study

13th week:
**Lecture:** Health implications of waste and hazardous waste  
**Seminar:** Chemical safety

14th week:
**Lecture:** Global environmental health problems  
**Seminar:** Student presentations I.

15th week:
**Lecture:** Environmental justice and environmental health policy  
**Seminar:** Student presentations II.

Requirements

This course provides comprehensive knowledge of traditional environmental health topics including air, water, soil pollution, and food contamination, their acute and chronic effects on human health, alongside health effects of noise, ionizing and nonionizing radiations, and health risks related to global environmental pollution. Approaches to preventing and reducing the adverse effects of environmental exposures are also discussed.

Subject: **EPIDEMIOLOGY OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES I.**

Year, Semester: 2nd year/2nd semester  
Number of teaching hours: **60**  
**Lecture:** 15  
**Seminar:** 45

1st week:
**Lecture:** Introduction to the epidemiology of infectious diseases  
**Practical:** (2 hours): Editing data entry form using the Epi-Info software (Case Study)

2nd week:
**Lecture:** The spread of infectious diseases, indicators of measuring the infectivity  
**Seminar:** (4 hours): Editing data entry form using the Epi-Info software 2 (case study), the dynamics of infection (Case Study)

3rd week:
**Lecture:** Outbreak curve  
**Seminar:** (4 hours): Data entry and data management (case study)

4th week:
**Seminar:** (3 hours): Outbreak investigation - descriptive analysis (case study)

5th week:
**Lecture:** The basics of statistical inference  
**Lecture:** The basics of sample size calculation

6th week:
**Lecture:** Using analytical epidemiological studies in outbreak investigation  
**Seminar:** (2 hours): Statistical power estimation using PS software (Case Study)

7th week:
**Seminar:** (4 hours): Outbreak investigation - analytical analysis (case study)

8th week:
**Lecture:** Stratified analysis  
**Seminar:** (3 hours): Stratified analysis (case study)
The aim is to learn the most the epidemiology of the most important communicable and non-communicable diseases.

**Subject: PUBLIC HEALTH MEDICINE II.**
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 60
Lecture: 30
Practical: 30

1st week:
**Lecture:** Clinical diagnosis
History, physical examination, investigations
Laboratory diagnosis, Imaging techniques, Functional tests

2nd week:
**Lecture:** Diseases of the circulatory system
Ischaemic heart disease, AMI, Hypertension and its complications, Thromboembolic diseases, Stroke

3rd week:
**Lecture:** Haematological diseases
Anaemia, myeloproliferative diseases

4th week:
**Lecture:** Neoplasia
Breast, lung and throat cancers, Colorectal cancers, Cervical, uterine, and ovarian cancers, Stomach cancer, Prostate carcinoma, Cancers of the mouth, Kidney tumours, Scrotal tumours, Malignant haematologic diseases

5th week:
**Lecture:** Diseases of the digestive system
Diseases of the stomach. Diseases of the liver, gall bladder and pancreas

6th week:
**Lecture:** Metabolic diseases
Diabetes, Hyperlipidaemia, Gout, Porphyria

7th week:
**Lecture:** Diseases of the pulmonary system
Bronchial asthma, Chronic obstructive pulmonary disease
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Description</th>
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<tbody>
<tr>
<td>8th</td>
<td><strong>Lecture:</strong> Infectious diseases Acute and chronic infectious diseases</td>
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<tr>
<td>9th</td>
<td><strong>Lecture:</strong> Diseases of the musculoskeletal system Bones, joint and muscular diseases (with emphasis on osteoporosis)</td>
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<tr>
<td>10th</td>
<td><strong>Lecture:</strong> Endocrinological diseases</td>
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<tr>
<td>11th</td>
<td><strong>Lecture:</strong> Diseases of the kidney</td>
</tr>
<tr>
<td>12th</td>
<td><strong>Lecture:</strong> Neurological diseases</td>
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<tr>
<td>13th</td>
<td><strong>Lecture:</strong> Psychiatry Psychosis, schizophrenia, alcoholism, delirium</td>
</tr>
<tr>
<td>14th</td>
<td><strong>Lecture:</strong> Paediatric diseases Dental diseases</td>
</tr>
<tr>
<td>15th</td>
<td><strong>Lecture:</strong> The fundamentals of surgery The operating theatre and surgical procedures</td>
</tr>
</tbody>
</table>

**Requirements**

Clinical diagnosis; Diseases of the circulatory system; Haematological diseases; Neoplasia; Diseases of the digestive system; Metabolic diseases; Diseases of the pulmonary system; Infectious diseases; Diseases of the musculoskeletal system; Endocrinological diseases; Diseases of the kidney; Neurological diseases; Psychiatry; Paediatric diseases; Dental diseases; The fundamentals of surgery
Department of Health Management and Quality Assurance, Faculty of Public Health

Subject: HEALTH CARE LAW I.
Year, Semester: 3rd year/1st semester
Number of teaching hours: 30
Lecture: 15
Practical: 15

1st week:
Lecture: Development of medical officer service’s regulation
Practical: Sources of administrative law

2nd week:
Lecture: Medical officer service in the state administration system
Practical: Principles of public administration

3rd week:
Lecture: Power and territorial system of the medical officer service
Practical: Types of cases

4th week:
Lecture: Population health management
Practical: Administrative sanctioning measures

5th week:
Lecture: Public health management
Practical: Nonsuit

6th week:
Lecture: Environmental and settlement health management
Practical: Evidence

7th week:
Lecture: Administrative tasks related to the deceased
Practical: Termination

8th week:
Lecture: Workplace aerosol exposure (dusts, fibers)
Practical: Agency

9th week:
Lecture: Control of the food chain
Practical: Case study

10th week:
Lecture: Rights and obligations of the food chain actors
Practical: Case study

11th week:
Lecture: State’s responsibility in the food chain control
Practical: Documents, public documents, official certificates

12th week:
Lecture: Administration tasks of the food chain supervisory authority
Practical: Sanctions of public administration

13th week:
Lecture: Occupational health management
Practical: Deadlines

14th week:
Lecture: Administration and coordination tasks of the health administration bodies
Practical: Medical practices – GPs’ clusters (GPC)

15th week:
Lecture: Minimum requirements of health care services
Practical: Administrative control
Requirements

Defining the role of law in public health and health. Getting acquainted with the legal framework governing the operation of health care, the legal regulation of the health administration system, the fundamental rights, and the related areas of law. In addition to the general legal framework, administrative law and administrative procedural principles and rules affecting the field, presentation of official roles and tasks in general, as well as health care and public health.

Department of Pharmacology and Pharmacotherapy

Subject: PHARMACOLOGY
Year, Semester: 3rd year/1st semester
Number of teaching hours: 30
Lecture: 30

1st week:
Lecture: Introduction to general pharmacology: pharmacokinetics and pharmacodynamics

2nd week:
Lecture: Pharmacology of autonomic nervous system: drugs acting on cholinergic and adrenergic receptors

3rd week:
Lecture: Pharmacology of central nervous system: antidepressants, antiepileptics

4th week:
Lecture: Pharmacology of central nervous system: antiparkinsonian drugs, anti-psychotics

5th week:
Lecture: Pharmacology of drugs of abuse: narcotics, stimulants

6th week:
Lecture: Pharmacology of drugs of abuse: depressants, cannabis, hallucinogens

7th week:
Lecture: Inhalants, steroids

8th week:
Lecture: Cardiovascular pharmacology:

antianginal, anti-arrhythmic drugs

9th week:
Lecture: Cardiovascular pharmacology: antihypertensive, antihyperlipidaemic drugs

10th week:
Lecture: Drugs used in congestive heart failure

11th week:
Lecture: Respiratory pharmacology: antiasthmatics

12th week:
Lecture: Pharmacology of gastrointestinal system

13th week:
Lecture: Antimicrobial and antiviral chemotherapy

14th week:
Lecture: Antitumor agents

15th week:
Lecture: Consultation
Requirements

Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics. During the semester two obligatory tests are required to fulfil. You have to take ESE during the examination period.

Department of Preventive Medicine, Faculty of Public Health

Subject: APPLIED EPIDEMIOLOGY
Year, Semester: 4th year/2nd semester
Number of teaching hours: 30
Lecture: 15
Practical: 15

1st week:
Lecture: Evolution of epidemiological methods
Practical: Evolution of epidemiological methods

2nd week:
Lecture: Experimental and observational approaches
Practical: Experimental and observational approaches

3rd week:
Lecture: Defining study questions
Practical: Defining study questions

4th week:
Lecture: Model preparation
Practical: Model preparation

5th week:
Lecture: Most frequently used study designs
Practical: Most frequently used study designs

6th week:
Lecture: Statistical inference
Practical: Statistical inference

7th week:
Lecture: Statistics in epidemiology (95% confidence interval)
Practical: Statistics in epidemiology (95% confidence interval)

8th week:
Lecture: Statistics in epidemiology (t-test, chi-square test, ANOVA)
Practical: Statistics in epidemiology (t-test, chi-square test, ANOVA)

9th week:
Lecture: Statistics in epidemiology (risk/odds ratio, Mantel-Haenszel odds ratio)
Practical: Statistics in epidemiology (risk/odds ratio, Mantel-Haenszel odds ratio)

10th week:
Lecture: Statistics in epidemiology (linear, logistic and Cox regression)
Practical: Statistics in epidemiology (linear, logistic and Cox regression)

11th week:
Lecture: Statistics in epidemiology (standardization)
Practical: Statistics in epidemiology (standardization)

12th week:
Lecture: Evaluating validity (confounding factors)
Practical: Evaluating validity (confounding factors)

13th week:
Lecture: Evaluating validity (selection bias)
Practical: Evaluating validity (selection bias)

14th week:
Lecture: Evaluating validity (measurement bias)
Practical: Evaluating validity (measurement bias)

15th week:
Lecture: Answering study question and practical conclusions

Requirements

The students are expected to know the evaluation of research need and public health importance, to be able to formulate research question, to construct a study model, and to plan the data collection by proper design, to carry out the statistical analysis, to draw statistical inference, to evaluate internal and external validity, to answer the research question, and to draw practical conclusions.

Subject: BASICS IN HEALTH PROMOTION AND POLICY
Year, Semester: 3rd year/1st semester
Number of teaching hours: 45
Lecture: 15
Practical: 30

1st week:
Lecture: Basics and values in policy. Policy networks and subsystems.

2nd week:
Lecture: Values, principles and objectives of health policy. Stakeholders and stewardship. The relationship between health, social and economic policy.

3rd week:
Lecture: The policy process. Health policy analysis.

4th week:

5th week:
Lecture: Goals and functions of health care systems. Preventive and curative care.

6th week:
Lecture: The characteristics of health care market. Need, demand and supply of health services.

7th week:

8th week:

9th week:

10th week:
Lecture: The international arena of public health policy.

11th week:
Lecture: The concept of health promotion. Political decisions in health.

12th week:
Lecture: Defining and measuring health in health care and health promotion.

13th week:
14th week:
**Lecture:** Individual and structural determinants of health 2. Policy measures to influence nutrition.

15th week:
**Lecture:** National and international infrastructure of health promotion.

**Requirements**

Attendance of the lectures is highly recommended.

Attendance of the seminars is obligatory and is a precondition of signing the lecture book, maximum two absences are allowed in the semester. Active participation in problem based learning exercises is required.

**Examination:**
Type of the exam: end-of-semester examination.
Form of exam: written exam (covers the topics of all lectures and seminars and the required literature).
Evaluation: Fail/pass on a scale 1-5.

**Subject:** EPIDEMIOLOGY OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES II.
Year, Semester: 3rd year/1st semester
Number of teaching hours: 45
Lecture: 15
Seminar: 30

1st week:
**Lecture:** Vaccinations, Vaccines
**Seminar:** Vaccine efficacy

2nd week:
**Lecture:** Emerging and re-emerging infectious diseases / The world health report
**Seminar:** Epidemiology of HIV / AIDS

3rd week:
**Lecture:** Levels of prevention, preventive strategies
**Seminar:** The advantages and disadvantages of different preventive strategies

4th week:
**Lecture:** The theoretical basis for screening programs
**Seminar:** Screening programs

5th week:
**Lecture:** The screening systems / Public Health Databases

6th week:
**Seminar:** HFA database

7th week:
**Lecture:** Literature research
**Seminar:** HFA database; Literature Research

8th week:
**Lecture:** Study Writing
**Seminar:** Literature search using PubMed

9th week:
**Lecture:** Epidemiology and prevention of cardiovascular diseases
**Seminar:** Study design - a measurement the frequency of a non-communicable disease - a theoretical framework

10th week:
**Lecture:** Epidemiology of metabolic disorders
Seminar: Study design- a measurement the frequency of a non-communicable disease

11th week:
Lecture: Epidemiology of liver and gastrointestinal diseases
Seminar: Study design- a measurement the frequency of a non-communicable disease

12th week:
Lecture: Cancer Epidemiology and Prevention
Seminar: Epidemiology of cancer

13th week:
Lecture: Epidemiology of chronic respiratory diseases
Seminar: The epidemiology of cancer (2)

14th week:
Lecture: The epidemiology and prevention of accidents
Basics of health economics

15th week:
Lecture: Epidemiology and prevention of musculoskeletal disorders
Seminar: Basics of health economics

Requirements

The aim is to learn the most the epidemiology of the most important communicable and non-communicable diseases.

Subject: OCCUPATIONAL HEALTH
Year, Semester: 3rd year/1st semester
Number of teaching hours: 60
Lecture: 30
Seminar: 24
Practice: 6

1st week:
Lecture: Introduction to occupational health; History and the subject of occupational medicine and hygiene
Seminar: Organizational structure of occupational health

2nd week:
Lecture: Physiology of work, safety of working process
Seminar: Criteria, classification and reporting of occupational diseases

3rd week:
Lecture: Workplace prevention. Environmental and biological monitoring
Seminar: Occupational exposure limits

4th week:
Lecture: Physical workplace hazards (noise, vibration, temperature, pressure)
Seminar: Measurement, evaluation and prevention of workplace noise and heat exposure

5th week:
Lecture: Physical workplace hazards (ionizing and non-ionizing radiations)
Seminar: Measurement, evaluation and prevention of workplace exposure to radiations

6th week:
Lecture: Chemical workplace hazards (metals, gasses)
Seminar: Chemical safety

7th week:
Lecture: Chemical workplace hazards solvents, plastics, pesticides
Seminar: Measurement, evaluation and prevention of workplace chemical exposures
The aim of the subject is to describe the discipline of occupational health and its main goals. The physiology of work and the possible preventive measures against workplace hazards will be discussed. The students get acquainted with the main physical, chemical, biological, mechanical (ergonomic) and psychosocial hazards in the workplace. Occupational health challenges in various industries will be reviewed and discussed by the students in the form of presentations.

Subject: PUBLIC HEALTH MEDICINE III.
Year, Semester: 3rd year/1st semester
Number of teaching hours: 60
Lecture: 30
Practical: 30

1st week:
Lecture: Important gynecological disorders (STDs, gynecological neoplasms, infertility). Causes, prevention and treatment options.
Practical: General gynecological examination. Taking a proper gynecological history. The most common complaints in gynecology.

2nd week:
Lecture: Important gynecological disorders (contraception, the basics of sexual education).
3rd week:
**Lecture:** Important disorders in obstetrics
(Premature birth. Complications, prevention and treatment)
**Practical:** General obstetrical examination.
Taking a proper obstetrical history. Obstetrical check-ups.

4th week:
**Lecture:** Different types of gastrointestinal infections (gastroenteritis)

5th week:
**Lecture:** Hepatitis

6th week:
**Lecture:** Nosocomial infections

7th week:
**Lecture:** The commonest disorders and causes of death in Pediatrics, Prevention in Pediatrics
**Practical:** Case reports

8th week:
**Lecture:** Oncology in Pediatrics, Prevention and rehabilitation
**Practical:** Case reports

9th week:
**Lecture:** Diseases of the periodontium
**Practical:** Prevention of periodontal disorders

10th week:
**Lecture:** The commonest disorders in Dentistry (caries)
**Practical:**
Dental screening, prevention and treatment

11th week:
**Lecture:** The commonest types of malignancies, risk factors and social effects.

**Practical:**
Case presentations connected to lecture topics between

12th week:
**Lecture:** Prevention and diagnosis in Oncology
**Practical:**
Case presentations connected to lecture topics between

13th week:
**Lecture:** Clinical features and treatment options of the commonest malignancies (breast cancer, lung cancer, prostate cancer, colo cancer)
**Practical:**
Case presentations connected to lecture topics between

14th week:
**Lecture:** Palliation. Miracle drugs in Oncology
**Practical:**
Case presentations connected to lecture topics between

15th week:
**Lecture:** The physiology of seeing. The commonest disorders of the eye
**Practical:**
Physical and instrumental examinations in Ophthalmology

**Requirements**
Clinical diagnosis; Diseases of the circulatory system; Haematological diseases; Neoplasia; Diseases of the digestive system; Metabolic diseases; Diseases of the pulmonary system; Infectious diseases; Diseases of the musculoskeletal system; Endocrinological diseases; Diseases of the kidney; Neurological diseases; Psychiatry; Paediatric diseases; Dental diseases; The fundamentals of surgery
Department of Family and Occupational Medicine, Faculty of Public Health

Subject: CHILD AND ADOLESCENT HEALTH
Year, Semester: 3rd year/2nd semester
Number of teaching hours: 30
Lecture: 30

1st week:
Lecture: Demographic, mortality and morbidity data regarding child health care.

2nd week:
Lecture: Child health services: organisation, place in the health care system, tasks and activities

3rd week:

4th week:
Lecture: Infant feeding and nutrition in childhood and adolescence.

5th week:
Lecture: Primary prevention infants, children and adolescents.

6th week:
Lecture: Childhood surveillance and screening.

7th week:
Lecture: Continuous care of children with chronic diseases.

8th week:
Lecture: Care of infants, children, adolescents with special needs.

9th week:
Lecture: Physical activity and physical education.

10th week:
Lecture: Obesity and its consequences in childhood and adolescence.

11th week:
Lecture: Smoking in childhood and adolescence.

12th week:
Lecture: Alcohol and drug abuse in childhood and adolescence.

13th week:
Lecture: Puberty, its disturbances and adolescents’ sexuality.

14th week:
Lecture: Psychological problems and harmful behaviours in adolescence.

15th week:
Lecture: Health improvement in childhood and adolescence: health education, health protection

Requirements

The aim of the course is to provide information on the health status of children and adolescents, the health determinants, the health care of this age group, and the role of health protection in the prevention of adult illnesses.
**Department of Health Management and Quality Assurance, Faculty of Public Health**

Subject: **HEALTH CARE LAW II.**  
Year, Semester: 3rd year/2nd semester  
Number of teaching hours: **30**  
Lecture: **15**  
Practical: **15**

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<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Practical</th>
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<tbody>
<tr>
<td>1st</td>
<td>Principles of health care law</td>
<td><strong>The role of the state</strong></td>
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<tr>
<td>2nd</td>
<td>System of health services</td>
<td><strong>Role of the government and society</strong></td>
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<tr>
<td>3rd</td>
<td>Health care system, primary care, outpatient and inpatient care, other health services</td>
<td><strong>Authority</strong></td>
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<tr>
<td>4th</td>
<td>Professional requirements of health services</td>
<td><strong>Operating principles</strong></td>
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<tr>
<td>5th</td>
<td>Health care organization and management</td>
<td><strong>Law and ethics</strong></td>
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<tr>
<td>6th</td>
<td>Public health</td>
<td><strong>Possibilities of enforcement</strong></td>
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<tr>
<td>7th</td>
<td>Health promotion, family and women’s care, youth health care, sports health care, environment and settlement health, food and nutrition health</td>
<td><strong>Criminal and civil sanctions</strong></td>
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<tr>
<td>8th</td>
<td>Radiation Health, occupational health, infectious disease control</td>
<td><strong>Research Involving Human Gametes</strong></td>
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<tr>
<td>9th</td>
<td>Patients' rights and obligations</td>
<td><strong>Rules and conditions of medical sterilization</strong></td>
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<tr>
<td>10th</td>
<td>Rights and duties of health care workers</td>
<td><strong>Procedures of authority</strong></td>
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<tr>
<td>11th</td>
<td>Medical research on humans</td>
<td><strong>Supporting and enforcing health-oriented legislation</strong></td>
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<tr>
<td>12th</td>
<td>Special procedures related to human reproduction, research involving human embryos and gametes, sterilization</td>
<td><strong>Administration and coordination</strong></td>
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<tr>
<td>13th</td>
<td>Treatment and care of psychiatric patients</td>
<td><strong>Medical inspection</strong></td>
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<tr>
<td>14th</td>
<td>Organ and tissue transplantation, blood provision</td>
<td><strong>Health development</strong></td>
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<tr>
<td>15th</td>
<td>Provisions related to the deceased, disaster medical care</td>
<td><strong>Tobacco taxation</strong></td>
</tr>
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</table>
Requirements

Defining the role of law in public health and health. Getting acquainted with the legal framework governing the operation of health care, the legal regulation of the health administration system, the fundamental rights, and the related areas of law. In addition to the general legal framework, a detailed description of the civil law and related special rights and obligations relating to the field, a description of the rules of care and the different rules relating to special procedures. A comprehensive presentation of the areas of public health and their legal implications.

Department of Preventive Medicine, Faculty of Public Health

Subject: BASICS OF QUALITY ASSURANCE
Year, Semester: 4th year/2nd semester
Number of teaching hours: 30
Lecture: 15
Seminar: 15

1st week:
Lecture: Importance of quality management in healthcare, general definitions of quality, evolution of quality thinking

2nd week:
Seminar: What quality means to me?

3rd week:
Lecture: Dimensions and structure of quality in healthcare, definition of criteria, standard, guideline, protocol, indicator

4th week:
Seminar: Discussion of Donabedian model

5th week:
Lecture: Assessment of quality of healthcare services, types of audit

6th week:
Seminar: Measurement of quality of healthcare by Donabedian model

7th week:
Lecture: Quality problems in healthcare

8th week:
Seminar: Prioritising quality problems

9th week:
Lecture: Quality improvement and quality tools

10th week:
Seminar: Planning a quality improvement project

11th week:
Lecture: Importance of clinical effectiveness in the improvement of healthcare service; Steps of clinical effectiveness in the improvement of healthcare service

12th week:
Lecture: Clinical audit

13th week:
Seminar: Planning of a clinical audit projects by teams

14th week:
Seminar: Presentation and discussion of quality improvement projects 1.

15th week:
Seminar: Presentation and discussion of quality improvement projects 2.
Requirements

Regular attending for the course
Presentation of a quality improvement project
Examination:
Written form

Subject: **FIELD AND LABORATORY PRACTICE I.**
Year, Semester: 3rd year/2nd semester
Number of teaching hours: **180**
Practical: **180**

Requirements

This course aims to equip students with the knowledge and skills to make valuable contributions to environmental health, food and nutrition, child and youth health, radiation and chemical safety, as well as communicable diseases, health promotion and health administration and management.

The course focuses on:
- The health status of the population, risk factors and the analysis of them, risk assessment and prevention;
- Effective public health rules: in the fields of environmental health, radiation, chemical safety, food and nutrition;
- Control of communicable diseases;
- Laboratory methods of preventive medicine;
- Health promotion activities to prevent diseases;
- Health administration tasks;
- Supervision of nursing, childhood care and pharmaceutics

Subject: **PUBLIC HEALTH MEDICINE IV.**
Year, Semester: 3rd year/2nd semester
Number of teaching hours: **60**
Lecture: **30**
Practical: **30**

1st week:
**Lecture:** Clinical diagnosis History, physical examination, investigations Laboratory diagnosis, Imaging techniques, Functional tests

2nd week:
**Lecture:** Diseases of the circulatory system Ischaemic heart disease, AMI, Hypertension and its complications, Thrombo-embolic diseases, Stroke

3rd week:
**Lecture:** Haematological diseases Anaemia, myeloproliferative diseases

4th week:
**Lecture:** Neoplasia Breast, lung and throat cancers, Colorectal cancers, Cervical, uterine, and ovarian cancers, Stomach cancer, Prostate carcinoma, Cancers of the mouth, Kidney tumours, Scrotal tumours, Malignant haematologic diseases

5th week:
**Lecture:** Diseases of the digestive system Diseases of the stomach. Diseases of the liver, gall bladder and pancreas
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<tr>
<th>Week</th>
<th>Lecture</th>
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<tbody>
<tr>
<td>6th</td>
<td><strong>Lecture:</strong> Metabolic diseases Diabetes, Hyperlipidaemia, Gout, Porphyria</td>
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<tr>
<td>7th</td>
<td><strong>Lecture:</strong> Diseases of the pulmonary system Bronchial asthma, Chronic obstructive pulmonary disease</td>
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<tr>
<td>8th</td>
<td><strong>Lecture:</strong> Infectious diseases Acute and chronic infectious diseases</td>
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<tr>
<td>9th</td>
<td><strong>Lecture:</strong> Diseases of the musculoskeletal system Bones, joint and muscular diseases (with emphasis on osteoporosis)</td>
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<tr>
<td>10th</td>
<td><strong>Lecture:</strong> Endocrinological diseases</td>
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<tr>
<td>11th</td>
<td><strong>Lecture:</strong> Diseases of the kidney</td>
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<tr>
<td>12th</td>
<td><strong>Lecture:</strong> Neurological diseases</td>
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<tr>
<td>13th</td>
<td><strong>Lecture:</strong> Psychiatry Psychosis, schizophrenia, alcoholism, delirium</td>
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<tr>
<td>14th</td>
<td><strong>Lecture:</strong> Paediatric diseases Dental diseases</td>
</tr>
<tr>
<td>15th</td>
<td><strong>Lecture:</strong> The fundamentals of surgery The operating theatre and surgical procedures</td>
</tr>
</tbody>
</table>

**Requirements**

Clinical diagnosis; Diseases of the circulatory system; Haematological diseases; Neoplasia; Diseases of the digestive system; Metabolic diseases; Diseases of the pulmonary system; Infectious diseases; Diseases of the musculoskeletal system; Endocrinological diseases; Diseases of the kidney; Neurological diseases; Psychiatry; Paediatric diseases; Dental diseases; The fundamentals of surgery
Department of Health Management and Quality Assurance, Faculty of Public Health

Subject: HEALTH CARE LAW III.
Year, Semester: 4th year/1st semester
Number of teaching hours: 30
Lecture: 15
Practical: 15

1st week:
Lecture: Evolution of the welfare state and social service systems
Practical: Procedures and systems

2nd week:
Lecture: Health care as part of the social system
Practical: E-admin

3rd week:
Lecture: Principles of the Social Security Act, system of benefits
Practical: Basic principles

4th week:
Lecture: Institutional social care and management
Practical: Budget

5th week:
Lecture: European Social Charter and its Rules
Practical: Links with health and public health law

6th week:
Lecture: The evolution of social insurance systems
Practical: Links with health and public health law

7th week:
Lecture: Forms of social insurance: health insurance; pension insurance
Practical: Links with health and public health law

8th week:
Lecture: Accident insurance benefits in Hungary

and in Western Europe
Practical: European unity

9th week:
Lecture: Health insurance benefits, the duration of the incapacity benefits (sick pay)
Practical: Procedures

10th week:
Lecture: Health insurance benefits provided in nature
Practical: EU legislation

11th week:
Lecture: International health organizations

12th week:
Lecture: Pension insurance systems in Western Europe
Practical: Basic principles of hiring

13th week:
Lecture: Forms of personal pension schemes, special rules of old-age and invalidity pension
Practical: Elements of the contract

14th week:
Lecture: Forms of dependent’s pension schemes, the rules for Western European institutions
Practical: Limitation and special rules

15th week:
Lecture: Special rules of private pension funds, principles and schemes
Practical: Liability for damages
Requirements

Defining the role of law in public health and health. Getting acquainted with the legal framework governing the operation of health care, the legal regulation of the health administration system, the fundamental rights, and the related areas of law. In addition to the general legal framework, the knowledge of the civil law aspects affecting the field, in particular the various legal relationships between the legal entities, the specificity of the system of liability and healthcare, with an international outlook.

Department of Preventive Medicine, Faculty of Public Health

Subject: FIELD AND LABORATORY PRACTICE II.
Year, Semester: 4th year/1st semester
Number of teaching hours: 180
Practical: 180

Requirements

This course aims to equip students with the knowledge and skills to make valuable contributions to environmental health, food and nutrition, child and youth health, radiation and chemical safety, as well as communicable diseases, health promotion and health administration and management.

The course focuses on:
The health status of the population, risk factors and the analysis of them, risk assessment and prevention;
Effective public health rules: in the fields of environmental health, radiation, chemical safety, food and nutrition;
Control of communicable diseases;
Laboratory methods of preventive medicine;
Health promotion activities to prevent diseases;
Health administration tasks;
Supervision of nursing, childhood care and pharmaceutics

Subject: HEALTH PROMOTION
Year, Semester: 4th year/1st semester
Number of teaching hours: 30
Lecture: 10
Practical: 20

1st week:
Lecture: History and principles of health promotion.

2nd week:
Lecture: Determinants of health: policy.

3rd week:
Lecture:
Practical: Determinants of health: environment and health care.
4th week:
**Practical:** Determinants of health: behaviour of individuals and groups. Models of health

5th week:
**Lecture:** Lifecourse in health: childhood and adult health.

6th week:
**Practical:** Determinants of health: communities.

7th week:
**Practical:** Community development.

8th week:
**Lecture:** Models of behaviour change.

9th week:
**Practical:** Behaviour change: motivation and skill improvement.

10th week:
**Practical:** Behaviour change among adolescents: peer education.

11th week:
**Practical:** Health promotion at settings.

12th week:
**Practical:** Basics of project planning.

13th week:
**Practical:** Public health projects.

14th week:
**Lecture:** Public health problems of disadvantaged populations.

15th week:
**Practical:** Group presentations

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**Requirements**

The students will gain information on the determinants of health, the initiation, concepts, methods, practice and evaluation of health promotion, the ways of behaviour change at the individual and group levels, and the basic concepts of planning health promoting projects.

**Subject:** **NUTRITIONAL HEALTH AND FOOD SAFETY**

Year, Semester: 4th year/1st semester
Number of teaching hours: **45**
Lecture: **15**
Seminar: **30**

1. week
   lecture: Introduction to nutritional health
   seminar: Nutrition risk screening questionnaire
2. week
   lecture: Nutrients and energy metabolism
   seminar: Food balance sheets
3. week:
   lecture: Energy and protein requirements
   seminar: Energy practice 1. Energy expenditure
4. week:
   lecture: Dietary assessment
   seminar: Energy practice 2. Energy intake
5. week:
   lecture: Obesity epidemic
   seminar: Assessment of nutritional status. Anthropometry
6. week:
   lecture: Nutritional deficiency disorders
   seminar: Prevention of nutritional deficiency disorders (project planning, small group work)
7. week:
   lecture: Diet and cardiovascular diseases
   seminar: Diet and prevention of chronic non-
communicable diseases (poster presentation, small group work)

8. week:
lecture: Diet and cancer
seminar: Diet, macro- and micronutrients in health promotion 1. (student ppt presentations and discussion)

9. week:
lecture: Diabetes prevention strategies
seminar: Diet, macro- and micronutrients in health promotion 2. (student ppt presentations and discussion)

10. week:
lecture: Dietary guidelines
seminar: Food competition day. (Food preparation and nutrient calculation of dishes)

11. week:
lecture: Food safety. HACCP systems
seminar: Food processing, preserves, food additives and regulations

12. week:
lecture: Epidemiology of foodborne diseases
seminar: Foodborne outbreak investigations (case study)

13. week:
lecture: Food allergy and intolerance
seminar: Food hygiene

14. week:
lecture: Genetically modified food products
seminar: Food law.

15. week:
lecture: Food choice
seminar: Consultation

Requirements

The aim of the course is to make students familiar with the role of nutrition and diet in health promotion and prevention of diseases. Students will learn the role of diet in the development of chronic non-communicable diseases such as cardiovascular disease, cancer and type 2 diabetes. They will learn dietary reference values for macro (energy and protein requirements) and micro nutrients (vitamins, minerals and trace elements) and the latest dietary recommendations. They will also learn the basic concepts and principles of food safety and regulations.

Attendance on lectures and seminars is obligatory. If the number of absences from the seminar is more than two, the lecture book cannot be signed.

Exam: written test, which assessed on five grade scale. Evaluation: less than 50% fail (1), 50-60% pass (2), 60-70% satisfactory (3), 70-80% good (4), more than 80% excellent (5).

Subject: THESIS I.
Year, Semester: 4th year/1st semester
Number of teaching hours:
Practical: 180
Department of Health Management and Quality Assurance, Faculty of Public Health

Subject: HEALTH CARE LAW IV.
Year, Semester: 4th year/2nd semester
Number of teaching hours: 30
Lecture: 15
Practical: 15

<table>
<thead>
<tr>
<th>1st week:</th>
<th>5th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> The development of labour law, the appearance of civil service employment law</td>
<td><strong>Lecture:</strong> Carrier development of civil servants</td>
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<tr>
<td><strong>Practical:</strong> Special rules</td>
<td><strong>Practical:</strong> The social security and health insurance system</td>
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<tr>
<th>2nd week:</th>
<th>6th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Labour law principles, introductory provisions of the Code of Labour, the scope of the Act on Legal Status of Civil Servants</td>
<td><strong>Lecture:</strong> Working time and rest time rules for the civil service</td>
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<tr>
<td><strong>Practical:</strong> Career plan</td>
<td><strong>Practical:</strong> Legal tools</td>
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<tr>
<th>3rd week:</th>
<th>7th week:</th>
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<tr>
<td><strong>Lecture:</strong> Subjects and establishment of civil service legal relationship</td>
<td><strong>Lecture:</strong> Remuneration of civil servants</td>
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<tr>
<td><strong>Practical:</strong> Disciplinary procedures</td>
<td><strong>Practical:</strong> Legal tools</td>
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<tr>
<th>4th week:</th>
<th>8th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Content of civil service legal relationship, fundamental rights and obligations</td>
<td><strong>Lecture:</strong> Liability of civil servants, disciplinary liability</td>
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<tr>
<td><strong>Practical:</strong> Salary</td>
<td><strong>Practical:</strong> Tasks</td>
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<th>9th week:</th>
<th>10th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Civil servant’s liability for damages</td>
<td><strong>Lecture:</strong> Employer's liability for damages</td>
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<tr>
<td><strong>Practical:</strong> Tasks</td>
<td><strong>Practical:</strong> Protecting interests - Chambers</td>
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<tr>
<th>11th week:</th>
<th>12th week:</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> Termination of the civil service legal relationship 1</td>
<td><strong>Lecture:</strong> Termination of the civil service legal relationship 2</td>
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<tr>
<td><strong>Practical:</strong> The patient, as a person</td>
<td><strong>Practical:</strong> Dignity</td>
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<tr>
<th>13th week:</th>
<th>14th week:</th>
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<tr>
<td><strong>Lecture:</strong> Civil service legal disputes</td>
<td><strong>Lecture:</strong> Special conditions of employment in the civil service</td>
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<tr>
<td><strong>Practical:</strong> Mediation</td>
<td><strong>Practical:</strong> The system of representation</td>
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<tr>
<th>15th week:</th>
<th>Requirements</th>
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<tbody>
<tr>
<td><strong>Lecture:</strong> The institutions of collective labour law</td>
<td><strong>Practical:</strong> Court cases</td>
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</table>
Defining the role of law in public health and health. Getting acquainted with the legal framework governing the operation of health care, the legal regulation of the health administration system, the fundamental rights, and the related areas of law. In addition to the general legal framework, the presentation of the health administration system affecting the field and the structure of other background institutions as well as the sectoral specialties.

Subject: **BASICS OF ECONOMY AND MANAGEMENT**
Year, Semester: 1st year/2nd semester
Number of teaching hours: **30**
Lecture: **30**

**1st week:**
**Lecture:** The background of the Hungarian health system in the aspect of law. Basic definitions.

**2nd week:**
**Lecture:** The construction and the levels of the health system, its conditions of functions and obligations.

**3rd week:**
**Lecture:** The constitution of financing according to the sources (OEP, state support, own income or other sources) in health institutes.

**4th week:**
**Lecture:** The actual questions and the background of patient documentation according to the rules of law. The patient documentation system of the UDMHSC.

**5th week:**
**Lecture:** The basic rules of employing manpower in the health system.

**6th week:**
**Lecture:** The tools of human resource from recruitment to labour development.

**7th week:**
**Lecture:** Conflict management – amicable settlement of disputes during work.

**8th week:**
**Lecture:** Fame, reputation and image. The determination and the complex interpretation of the institute’s image. Interdependace between image and PR. The tools of PR and PR in tools.

**9th week:**
**Lecture:** PR as Public Affairs, connection with the media and press, relations to the government, issue management/conflict management.

**10th week:**
**Lecture:** Effective communication in connection with tenders in the projects’ preparatory, effectuative and later stages.

**11th week:**
**Lecture:** Tendering possibilities in public health nowadays.

**12th week:**
**Lecture:** Quality control and quality assurance in health institutes (tasks and opportunities). Quality assurance as a supportive tool of decision preparation.

**13th week:**
**Lecture:** The social circumstances and the background of quality assurance in the aspect of law, profession and economy.

**14th week:**
**Lecture:** The estimation and the measurement of the level of health care nowadays.

**15th week:**
**Lecture:** Summary, Q & As, testing in a written form.
Requirements

Examination:
final examination

Form of examination:

The students are required to make an essay from a freely chosen topic in the field of health system management by using the literature they explore and elaborate on their own. The essay’s volume is required to be 10,000-15,000 characters and has to be submitted by the 14th educational week. With the agreement of the teacher correction of the mark is possible by making a new essay on a different topic.

Department of Preventive Medicine, Faculty of Public Health

Subject: FIELD AND LABORATORY PRACTICE III.
Year, Semester: 4th year/2nd semester
Number of teaching hours: 180
Practical: 180

Requirements

This course aims to equip students with the knowledge and skills to make valuable contributions to environmental health, food and nutrition, child and youth health, radiation and chemical safety, as well as communicable diseases, health promotion and health administration and management.
The course focuses on:
The health status of the population, risk factors and the analysis of them, risk assessment and prevention;
Effective public health rules: in the fields of enviroental health, radiation, chemical safety, food and nutrition;
Control of communicable diseases;
Laboratory methods of preventive medicine;
Health promotion activities to prevent diseases;
Health administration tasks;
Supervision of nursing, childhood care and pharmaceutics

Subject: THESIS II.
Year, Semester: 4th year/2nd semester
Number of teaching hours: 60
Practical: 60
Department of Physiotherapy, Faculty of Public Health

Subject: RESEARCH METHODOLOGY
Year, Semester: 3rd year/2nd semester
Number of teaching hours: 30
Lecture: 30

1st week:
**Lecture:** The principles of scientific inquiry. Validity, reliability, precision of research

2nd week:
**Lecture:** Types and process of scientific research

3rd week:
**Lecture:** Ethics of science

4th week:
**Lecture:** Methods of quantitative research I

5th week:
**Lecture:** Methods of quantitative research II

6th week:
**Lecture:** Methods of qualitative research

7th week:
**Lecture:** Orientation in the library

8th week:
**Lecture:** Orientation in the scientific literature I

9th week:
**Lecture:** Orientation in the scientific literature II

10th week:
**Lecture:** Study design

11th week:
**Lecture:** Collecting data, measurements, observations

12th week:
**Lecture:** Data storage, processing, and analysis

13th week:
**Lecture:** Interpreting, presenting and publishing results. Evince-based practice

14th week:
**Lecture:** Rules of scientific publication

15th week:
**Lecture:** Rules of presentation. Requirements of degree thesis

Requirements

Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics. E-learning course contains the course material.

The course is closed by a written end of semester exam (ESE). The grading scale is as follows:

- <54%: (1) fail
- 55-64%: (2) pass
- 65-74%: (3) satisfactory
- 75-84%: (4) good
- 85-100%: (5) excellent

The course supported by an e-learning module. The attendance at lectures cannot be replaced by the e-learning activity! 10% of the scores in the ESE can be achieved in the e-learning module. The bonus points are added to the score achieved in the written exam above 55%. The „fail” cannot be
improved by bonus points.

Department of Preventive Medicine

Subject: TERRESTRIAL ENVIRONMENTAL PROTECTION
Year, Semester: 2nd year/2nd semester
Number of teaching hours: 20
Lecture: 20

1st week
Lecture: Introduction to terrestrial environmental protection. The fields and activities of environmental protection.

2nd week

3rd week

4th week

5th week
Lecture: Major anthropogenic sources of air pollution. Sulphurous and photochemical smog. Different methods of prevention and control of air pollution.

6th week

7th week

8th week

9th week
Practice: Renewable energy technologies: wind power, hydropower, solar energy, biomass, geothermal energy.

10th week

11th week
management (prevention and waste minimisation; reuse and recycling; methods of disposal).

12th week
Lecture:
Concept of sound. Sound pressure level, frequency and propagation. The acoustic environment. Health effects of noise. Noise control.

13th week
Practice:
Visit to the Botanic Garden, University of Debrecen.

14-15th week
Practice:
Student presentations.

Requirements
Attendance on the lectures is highly recommended, participation in practices is obligatory. Furthermore, during the semester students should give an oral presentation from a freely chosen topic in the fields of terrestrial environmental protection by using the scientific literature. Attendance of the practices and a well-made presentation are preconditions of fulfilling the requirements.

Examination:
At the end of the semester, students are required to take a Final Exam. The exam includes 15 multiple choice test questions and 5 short questions (20 x 2 points). The control tests, including the topics of the lectures and practices, will be given during the semester.

Subject: AQUATIC ENVIRONMENTAL PROTECTION
Year, Semester: 3rd year/1st semester
Number of teaching hours: 20
Lecture:

1st week
Lecture:
Introduction to aquatic environmental protection.

2nd week
Lecture:

3rd week
Lecture:
Water management. Concept of water resources management. Water demands and water use. Static and dynamic water resources.

4th week
Lecture:

5th week
Practice:
Water quality II: Evaluation of water toxicity by test organisms: Algal growth inhibition test, Daphnia acute immobilization test, Fish acute toxicity test and Seed germination (Sinapis alba) test.

6th week
Lecture:
The EU Water Framework Directive (WFD). Objectives and implementation of WFD.
7th week
Lecture:
Characterization of surface and groundwater resources. Principal sources and causes of water pollution. General categories of water contaminants. Control of water pollution.

8th week
Lecture:
Definition and requirements of drinking water. Drinking water production.

9th week
Lecture:

10th week
Lecture:

11th week
Lecture:
Wetlands. Characteristics of these habitats and the main causes of their destruction. Reservoirs of biodiversity.

12th week
Lecture:
The main international conferences on the protection of the environment from Stockholm to present days. The Ramsar Convention.

13th week
Practice:
Visit to the Surface Water Treatment Plant in Balmazújváros.

14-15th week
Practice:
Student presentations.
**Requirements:**

Attendance on the lectures is highly recommended, participation in practices is obligatory. Furthermore, during the semester students should give an oral presentation from a freely chosen topic in the fields of terrestrial environmental protection by using the scientific literature. Attendance of the practices and a well-made presentation are preconditions of fulfilling the requirements.

**Examination:**

At the end of the semester, students are required to take a Final Exam. The exam includes 15 multiple choice test questions and 5 short questions (20 x 2 points). The control tests, including the topics of the lectures and practices, will be given during the semester.
Subject: **CLINICAL PROPEDEUTICS**  
Year, Semester: 2nd year/1st semester  
Number of teaching hours: **30**  
Lecture: **15**  
Practice: **15**

1st week  
The behaviour of the staff in the medical and health care services

2nd week  
Anamnesis, general physical examination

3rd week  
Inspection, palpation, percussion, auscultation

4th week  
Measurement of body temperature, body mass index and blood pressure

5th week  
Radiology methods

6th week  
Invasive and non-invasive instrumental examinations in cardio pulmonology

7th week  
Methods of nuclear medicine

8th week  
Laboratory diagnostic procedures

9th week  
Physical examination of the abdomen

10th week  
Ascites, vomitus, diarrhoea, obstipation

11th week  
Reasons and recognition of the acute abdomen syndrome

12th week  
Examination of the urogenital tract

13th week  
Basic investigations of the movement and nervous systems

14-15th week  
Practicals give possibilities for individual trainings in the basic methods

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Subject: **WORK SAFETY AND FIRE PROTECTION**  
Year, Semester: 1st year/1st semester  
Number of teaching hours: **15**  
Seminar: **15**

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Subject: **BASICS OF PEDAGOGY**  
Year, Semester: 1st year/1st semester  
Number of teaching hours: **15**  
Lecture: **15**

1st week:  
Lecture: Basic concepts of pedagogy

2nd week:  
Lecture: Principles of pedagogical activity
3rd week:
Lecture: Theories and trends in pedagogy

4th week:
Lecture: Elements of pedagogical influence

5th week:
Lecture: Values and aims
Process of pedagogical influence

6th week:
Lecture: Fields of personality development

7th week:
Lecture: Process of education postoperative nursing tasks; aseptic and hygienic environment

8th week:
Lecture: Process of teaching and learning

9th week:
Lecture: Edifying conduct

10th week:
Lecture: Methodology (basics, influencing factors, methods, differentiation)

11th week:
Lecture: Scenes of pedagogical activity (family, school, boarding schools, etc.)

12th week:
Lecture: Key participants and their communication

13th week:
Lecture: Consultation

14th week:
Lecture: Theoretical and practical issues of planning

15th week:
Lecture: Pedagogical activity in health care

Department of Behavioural Sciences

Subject: HEALTH ANTROPOLOGY
Year, Semester: 1st year/1st semester
Number of teaching hours: 30
Lecture: 30

1st week:
lecture: Introduction, methods, tasks

2nd week:
lecture: The importance of an anthropological perspective in public health

3rd week:
lecture: Methods of approach I.: science vs. hermeneutics

4th week:
lecture: Methods of approach II: modern vs. postmodern

5th week:
lecture: How culture can influence disease and health issues

6th week:
lecture: Relationship between CAM and biomedicine I.

7th week:
lecture: Relationship between CAM and biomedicine II

8th week:
lecture: Body concepts in cultural perspectives

9th week:
lecture: Medicalization in cultural context

10th week:
lecture: Medicalization and health care
systems II.

11th week:
lecture: Pain and suffering in cultural context

12th week:
lecture: The aspects and meanings of death and dying

Subject: GERONTOLOGY
Year, Semester: 3rd year/2nd semester
Number of teaching hours: 30
Lecture: 20

1st week:
Lecture: Basic terms of gerontology

2nd week:
Lecture: Gerontology in mirror of statistics I: Process of aging of individuals

3rd week:
Lecture: Gerontology in mirror of statistics II: Tendencies of mortality

4th week:
Lecture: Systemic approach of gerontology

5th week:
Lecture: Biogerontology: the basics

6th week:
Lecture: Biogerontology: aging theories

7th week:
Lecture: Biogerontology: experimental gerontology

8th week:
Lecture: Biogerontology: aging and diseases

9th week:
Lecture: Geriatrics: Physiological as well as pathological alterations due to aging I

10th week:
Lecture: Geriatrics: Physiological as well as pathological alterations due to aging II

11th week:
Lecture: Social gerontology: Gerontopsychology

12th week:
Lecture: Social gerontology: Aspects of the society regarding aging

13th week:
Lecture: Prevention and aging

14th week:
Lecture: Possibilities for the slowing down of the aging process

15th week:
Lecture: Repetition, discussion

Requirements
Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics. Students are encouraged to prepare and present own presentations from the topics. ESE will be carried out as a written exam. The final score will be evaluated on the basis of the written exam and the personal activity during the semester.
Subject: **BASICS OF DIETETICS**  
Year, Semester: 3rd year/2nd semester  
Number of teaching hours: **30**  
Lecture: **15**  
Practice: **15**

1<sup>st</sup> week:  
Introduction to dietetic nutrition; basic definitions; energy and food requirements; nutrients (proteins, fats, carbohydrates; vitamins, minerals)

2<sup>nd</sup> week  
Characteristics of the nutrition of the Hungarian population

3<sup>rd</sup> week  
Principles of the healthy nutrition; food pyramid

4<sup>th</sup> week  
Food product knowledge; cereals; vegetables, fruits, milk products; meats, fats, oils, sweeties, drinks – their importance in the nutrition physiology

5<sup>th</sup> week  
Undernourishment and its consequences

6<sup>th</sup> week  
Metabolic syndrome, its dietetic treatment; diet in the diseases of the movement system; vegetarian diets

7<sup>th</sup> week  
Diet in pregnancy and lactation

8<sup>th</sup> week  
Practice: Calculation of the energy and nutrient content of foods

9<sup>th</sup> week  
Kitchen technologies for health prevention

10<sup>th</sup> week  
Construction and evaluation of a health protective diet

11<sup>th</sup> week  
Possibilities of roboration: Diet in obesity and diabetes mellitus.

12<sup>th</sup> week  
Dietetic treatment of osteoporosis

13<sup>th</sup> week:  
Patient health education

14<sup>th</sup> week  
Practice

15<sup>th</sup> week:  
Practice

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Subject: **HEALTH PROMOTION IN PRIMARY CARE**  
Year, Semester: 4th year/1st semester  
Number of teaching hours: **15**  
Practice: **15**
CHAPTER 11
LIST OF TEXTBOOKS

BMC
Introduction to Biophysics I.: 
Serway/Vuille: College Physics.
University of Debrecen.

Introduction to Medical Chemistry I.: 

Introduction to Medical Chemistry II.: 
F., Erdődi, Cs., Csortos: Organic Chemistry for Premedical Students.
University of Debrecen, 2011.

Hungarian Language for BMC students:
Gerő Ildikó-Kovács Judit: Színesen magyarul.
2017.

Introduction to Biology I.: 

Introduction to Biophysics II.: 
Serway/Vuille: College Physics.
University of Debrecen.

Introduction to Biology II.: 

English for BMC students:
Student's Book With Itutor.

SBMC
Introduction to Biophysics:
Introduction to Medical Chemistry:
F., Erdődi, Cs., Csortos: Organic Chemistry for Premedical Students.
University of Debrecen, 2011.

Introduction to Biology:

1st year
Chemistry:
Gergely, P.: Organic and Bioorganic Chemistry for Medical Students.
3rd edition. Medical and Health Science Center, University of Debrecen, 2008.
F., Erdődi, Cs., Csortos: Organic Chemistry for Premedical Students.
University of Debrecen, 2011.

Basics of Informatics:
: Handbooks of MS Office applications, Internet sources.

Psychology:
Segerstrale, U., Peter Molnár: Non-verbal communication: where nature meets culture.
Lawrence Erlbaum Associate, Mahwah, New Jersey, 1997.
Hergenhahn, B. R.: An Introduction to the History of Psychology.
Introduction to Psychology.

Communication skills:
Pilling János: Medical Communication.
Segerstrale, U., Peter Molnár: Non-verbal communication: where nature meets culture.
Lawrence Erlbaum Associate, Mahwah, New Jersey, 1997.

Bioethics:
Tom L. Beauchamp and James F. Childress: The principles of biomedical ethics. 7th edition,

First aid:

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Introduction to Nursing and Clinical Medicine:

Sociology:
: http://www.sociologyofhealth.net.

Ecology:
: All topics of the lectures and seminars.

Mathematical basics of biostatistics:

Health informatics:
: Handbooks of MS Office applications, Internet sources.
.

Medical latin:
Répás László, 2016.

Philosophy:

Introduction to public health:

Cell Biology:

Basic anatomy:

Biostatistics:

Swinson TDV, Campbell MJ: Statistics at Square One. (http://resources.bmj.com/bmj/readers/statistics-at-square-one/)

Health (& Library) informatics I.: Handbooks of MS Office applications, Internet sources.

Genetics and molecular biology:
All the materials presented on lectures are compulsory.


Hungarian Language II.:

Health sociology:
Helman, C. G.: Culture, Health and Illness. CRC Press (Chapter 1.).

History of public health:
Dr Darányi Gyula: Közegészségtan I-IV. kötet.

2nd year
Introduction to law I.:
Jeffrey F. Beatty: Introduction to Business Law.
Lucy Jones: Introduction to Business Law.
Richard A. Mann, Barry S. Roberts: Smith and Roberson's Business Law.
Cengage Learning, 2011.

Physiology:
Koeppen, B. M., Stanton, B. A.: Berne & Levy Physiology.
Hall, J. E.: Guyton and Hall Textbook of Medical Physiology.

Public health medicine I.:
McPhee, Stephen J.; Papadakis, Maxine A.; Tierney, Lawrence M.: Current Medical Diagnosis and Treatment.
2008.

Basic epidemiology:
Woodward M.: Epidemiology: Study design and data analysis.
Hennekens CH., Buring JE.: Epidemiology in Medicine.
Little, Brown and Company, Boston, Toronto, .

Basic microbiology:
Levinson, W.: Review of Medical Microbiology and Immunology.

Health (& Library) informatics II.:
Parker, J.C., Thorson, E.: Health Communication in the New Media Landscape.
Greenhalgh T .: How to Read a Paper: The Basic of Evidence Based Medicine.

Basic Biochemistry:

Professional Hungarian I.:
Fodor Marianna - Rozman Katalin: Beszélek magyarul?! I. .
Basics of research methodology:
Keshav, S.: How to Read a Paper. 
URL: http://ccr.sigcomm.org/online/files/p83-keshavA.pdf

Modern morphological methods and possible applications:


Environmental protection:

Internet in medicine:

Immunology:
Gogolák, P., Koncz, G.: Short textbook of Basic Immunology.

Introduction to law II:
Lucy Jones: Introduction to Business Law.
Environmental health:
: Power points slides of the lectures and seminars available at: www.nepegeszseg.hu/pdf.

Dade W. Moeller: Environmental Health.
Frumkin H.: Environmental Health.

Public health medicine II.:
McPhee St. J., Papadakis, M.: Current Medical Diagnosis and Treatment.

Epidemiology of communicable and non-communicable diseases I.:
Heyman DL (ed.).: Control of communicable diseases manual.
Giesecke J.: Modern infectious disease epidemiology.
Gregg MB. (ed.).: Field Epidemiology.
Webber R.: Communicable disease epidemiology and control. A global perspective.

Professional Hungarian II.:
Fodor Marianna-Rozman Katalin: Beszélek magyarul?! II..

Health impact assessment:

Clinical audit:

Biochemistry:
Harvey, Ferrier: Biochemistry.

3rd year
Pharmacology:

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Basics in health promotion and policy:
Birkland T.: An introduction to the policy process.
M.E. Sharpe, 2005.
Little, Brown and Company, Boston, .
Sabatier, P.A., (ed.): Theories of the policy process.
Wiley and Sons, 1997.
Routledge, 2002.

Public health medicine III.: McPhee, Stephen J.; Papadakis, Maxine A.; Tierney, Lawrence M.: Current Medical Diagnosis and Treatment.
2008.

Epidemiology of communicable and non-communicable diseases II.: Heyman DL (ed.): Control of communicable diseases manual.
Giesecke J.: Modern infectious disease epidemiology.
Occupational health:
Aw TC, Gardiner K, Harrington JM: Occupational Health: Pocket Consultant.

Health care law I.:
Patyi A, Rixer A: Hungarian Public Administration and Administrative Law.
Schenk Verlag, 2014.
Health Administration Press, 2017.
Delmar Cengage, 2011.
Lucy Jones: Introduction to Business Law.

Introduction to the general laboratory practice:
Coyne G. S.: The laboratory companion. A practical guide to materials, equipments and technique.
Holm J. R., Olmsted S. R.: Laboratory manual. Elements of general, organic and biological chemistry.

Applied epidemiology:
R. Beaglehole, R. Bonita, T. Kjellström: Basic epidemiology.
Kenneth J. Rothman, Timothy L. Lash, Sander Greenland: Modern Epidemiology.
Wolfgang Ahrens, Iris Pigeot: Handbook of Epidemiology.

Health care law II.:
Health Administration Press, 2017.
Marcia A. Lewis: Medical Law, Ethics, & Bioethics for the Health Professions.
2002.
Kerry J. Breen: Good Medical Practice: Professionalism, Ethics and Law.
Basics of quality assurance:

Public health medicine IV.:
McPhee, Stephen J.; Papadakis, Maxine A.; Tierney, Lawrence M.: Current Medical Diagnosis and Treatment. 2008.

Field and laboratory practice I.:

CHILD AND ADOLESCENT HEALTH:
: The slides of lectures.
: Relevant information on the website of the WHO, CDC, UNICEF, UpToDate.

4th year
Health care law III.:

Health promotion :
: Notes of lectures and seminars.
: Relevant information on the website of the WHO.

Nutritional health and food safety :
From farm to fork. Safe food for Europe’s consumers. European Communities, 2004

Field and laboratory practice II.: 

Health system management:
Thomas Bodenheimer: Understanding Health Policy.
James W. Henderson: Health Economics and Policy.
2008.
Michael E. Porter: Redefining Health Care: Creating Value-Based Competition on Results.
2006.
Peter Kongstvedt: Managed Care: What It Is and How It Works.
Jonas and Kovner's : Health Care Delivery in the United States.

Health care law IV.:
Lawrence O. Gostin: Public Health Law and Ethics.
Kerry J. Breen: Good Medical Practice: Professionalism, Ethics and Law.
Lucy Jones: Introduction to Business Law.

Field and laboratory practice III.: 
CHAPTER 12
TITLES OF THESES

Department of Family and Occupational Medicine, Faculty of Public Health

László Róbert Kolozsvári, MD:
Advantages of computer-aided diagnosis in primary care
Work related stress and burnout amongst healthcare workers
Health impairment related to occupational hazards

Tímea Ungvári, MSc
Psychosocial etiological factors in the workplace
Stress, as a risk factor in the working environment
Effects of burnout on work efficiency

Zoltán Jancsó, MD
Cardiovascular risk factors and risk assessment
Continuing care of patients with high cardiovascular risk in primary care

Anna Nánási, MD
The family physician as gatekeeper
Physical, mental and social aspects of aging

Department of Preventive Medicine, Faculty of Public Health

Balázs Ádám, MD
Thesis:
Investigation of workplace hazards
Occupational diseases
Genotoxic exposures in the work- and ambient environment
Health impact assessment of policies, programmes and projects

János Sándor, MD
Thesis:
Evaluation of chronic care for hypertension in general medical practice
Evaluation of chronic care for diabetes mellitus in general medical practice
Evaluation of chronic care for adult overweighted in general medical practice
Evaluation of chronic care for adult smokers in general medical practice

Sándor Szűcs, PhD
Mortality due to environmental risk factors in European countries
Burden of diseases attributed to environmental risk factors in European countries

Helga Bárdos, MD
Thesis and TDK:
Gene-environment interactions and obesity (systematic review)
The effect of school based health promotion programs on nutrition (systematic review)
The effect of neighborhood environment on physical activity and diet (systematic review)
Analysis of factors affecting risk perceptions (study)
Prevalence of obesity (trend analysis)

Szilvia Fiatal, MD
Thesis and TDK:
Genomic determinants of cardiovascular diseases

Éva Bíró, MD
Thesis and TDK:
Health-related behaviours among adolescents
Mental health of students

László Pál, PhD
Thesis
Pesticide use in developed and developing countries

Károly Nagy, PhD
Thesis:
Genetic epidemiology of obesity (literature review)
TDK:
The role of the FTO gene in the development of metabolic syndrome

Department of Behavioural Sciences, Faculty of Public Health

Attila Bánfalvi, PhD
Medicalization and its social-cultural context
Changing attitudes towards human phenomena in Western medicine
Prolongation of life as a modern Western project
Contemporary problems of Psy-complex
Health and disease in cultural context

Péter Kakuk, PhD
Thesis:
Ethical institutions in healthcare
Research ethical questions in public health research
Challenges of scientific integrity
Ethical dilemmas of confidentiality in healthcare
Ethical issues in genetics
The ethical governance of scientific publications

Sándor Kömüves, PhD
Thesis:
End of Life Decisions
Department of Health Management and Quality Assurance, Faculty of Public Health

Klára Bíró, DMD, PhD
Thesis and TDK:
  - Increasing expectations among healthcare consumers
  - Challenges for healthcare managers
  - Patient safety and staff safety in hospitals
  - Work environment within hospitals
  - Genomic applications through the lens of health policy

Gábor Bányai-Márton, PhD
Thesis and TDK:
  - History of international health organizations
  - Tobacco control in developing countries
  - Bioterrorism and global health security
  - Right to Health for refugees

Judit Zsuga, MD
Thesis and TDK
  - Workplace stress in health care
  - Performance and workplace stress

Klára Boruzs, MSc
Thesis and TDK:
  - Drug utilization in the world
  - The pharmaceutical industry’s operation from viewpoint of the management

Viktor Dombrádi, MSc
  - Quality management in hospitals