BULLETIN

UNIVERSITY OF DEBRECEN

FACULTY OF PUBLIC HEALTH

BSc in Public Health

COORDINATING CENTER FOR INTERNATIONAL EDUCATION
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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 center 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 Center 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 programmes as well as the establishment of a doctoral programme 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 centre in Hungary. According to the Bologna process the Faculty has established and from 2006 and 2007 launched its bachelor and master training programmes in the field of public health and health sciences. With its 2 bachelor, 5 master training programmes and 6 postgraduate courses, the Faculty of Public Health offers a rich variety of learning experience at present. There are two doctoral programmes 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 Behavioral 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 center)

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 course in Physiotherapy launched by the Faculty of Public Health of the University of Debrecen is built on a 13-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 fulfill an international demand in health care (involving physiotherapy) training.

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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**FACULTY OF HEALTH**

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<th>Dean</th>
<th>Imre Semsei, D.Sc.</th>
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<td><strong>Address</strong></td>
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<tr>
<th>Vice-Dean for Scientific Affairs</th>
<th>János Kiss Ph.D.</th>
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<th>Vice-Dean for Educational Affairs</th>
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Ms. Rita Kovács J.D.

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Imre Szűcs B.Sc.
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Ms. Bernadett Hidegh M.Sc.
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Ms. Brigitta Munkácsi M.Sc.
Ms. Anikó Nagy M.Sc.

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Péter Kakuk M.A., Ph.D.
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Ms. Hajnalka Márton M.D.
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Ms. Dóra Kölesné Dezső M.D.

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

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<th>Role</th>
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<td>Fellow</td>
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<td>PhD Student</td>
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<td>Academic Advisor</td>
<td>Sándor Szűcs M.Sc., Ph.D.</td>
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### CHAPTER 5

**FACULTY OF MEDICINE - DEPARTMENTS OF BASIC SCIENCES**

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<tbody>
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<td>Full Professor, Head of Oral Anatomy Division</td>
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<td>György Székely M.D., Ph.D., D.Sc., M.H.A.Sc.</td>
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<td>Zoltán Mészár M.Sc., Ph.D.</td>
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<tr>
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<td>Ms. Zsófia Antal M.D., Ph.D.</td>
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<tr>
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<td>Ms. Krisztina Hegedűs M.Sc.</td>
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<tr>
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<tr>
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<td>Ms. Éva Katona M.Sc.</td>
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<td>Ms. Szilvia Kecskés M.Sc., Ph.D.</td>
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<td>Ms. Annamária Kenyeres M.Sc.</td>
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<td>Ms. Lívia Kicska M.Sc.</td>
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<td>Ms. Gréta Kis M.Sc.</td>
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<td>Ms. Zsanett Sólyom M.Sc.</td>
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</table>
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**Assistant Professor**
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**Assistant Lecturer**
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- Ms. Edit Végh M.D.

**Clinical Specialist**
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- Ms. Ágnes Horváth M.D.
- Ms. Zsófia Pethő M.D.

**Resident**
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- Ms. Boglárka Soós M.D.

---

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E-mail: iroda@med.unideb.hu; csiba@med.unideb.hu

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor, Head of Department</td>
<td>László Csiba M.D., Ph.D., D.Sc.</td>
</tr>
<tr>
<td>Full Professor</td>
<td>István Fekete M.D.</td>
</tr>
<tr>
<td>Professor Emeritus</td>
<td>Ferenc Mechler M.D., Ph.D., D.Sc.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Tünde Csépany M.D., Ph.D.</td>
</tr>
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<td>Tünde Magyar M.D., Ph.D.</td>
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<td>László Oláh M.D., Ph.D.</td>
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<tr>
<td>Assistant Professor</td>
<td>Judit Boczán M.D., Ph.D.</td>
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<td>Klára Fekete M.D., Ph.D.</td>
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<td>Bertalan Vámosi M.D.</td>
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<tr>
<td>Assistant Lecturer</td>
<td>Krisztina Csapó M.D., Ph.D.</td>
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<tr>
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<td>Katalin Réka Kovács M.D., Ph.D.</td>
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<td></td>
<td>Norbert Kozák M.D., Ph.D.</td>
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<tr>
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<td>Zsolt Mezei M.D., Ph.D.</td>
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<td>Szilvia Puskás M.D., Ph.D.</td>
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<tr>
<td>Clinical Assistant</td>
<td>Anita Frendl M.D.</td>
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<td>Edina Kovács M.D.</td>
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<td>Katalin Szabó M.Sc.</td>
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<tr>
<td>Candidate Clinical Assistant</td>
<td>Szabolcs Farkas M.D., Ph.D.</td>
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<tr>
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<td>Gergely Hofgárt M.D.</td>
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<td>Resident</td>
<td>Lilla Rácz M.D.</td>
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<tr>
<td>PhD Student</td>
<td>Aletta Harmann M.D.</td>
</tr>
<tr>
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<td>Csilla Vér</td>
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</tbody>
</table>
Full Professor, Head of Department
Róbert Póka M.D., Dr. habil., Ph.D.

Full Professor
Zoltán Hernádi M.D., Ph.D., D.Sc.
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Tamás Major M.D., Ph.D.

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Alpár Gábor Juhász M.D., Ph.D.
Zoárd Krasznai M.D., Ph.D.
Rudolf Lampé M.D., Ph.D.
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Ms. Szilvia Vad M.D., Ph.D.

Assistant Lecturer
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Tamás Deli M.D., Ph.D.
János Lukács M.D.
Péter Török M.D., Ph.D.

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Ms. Ildikó Zsupán M.Sc.

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István Argay M.D.
Balázs Erdődi M.D.

Ms. Ágnes Farkas M.D.
István Fekete M.D.

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Bence Kozma M.D.
László Orosz M.D.
Jashanjeet Singh M.D.

Candidate Clinical Assistant
Péter Damjanovich M.D.

Ms. Eszter Maka M.D.
Szabolcs Molnár M.D.
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Associate Professor, Head of Division of Pediatric Emergency Care
Ms. Rita Káposzta M.D., Ph.D.

Associate Professor
István Csízy M.D., Ph.D.
Ms. Ilona György M.D., Ph.D.
Gábor Mogyorósy M.D., Ph.D.
Béla Nagy M.D., Ph.D.
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István Szegedi M.D., Ph.D.

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Ms. Enikő Felszeghy M.D., Ph.D.
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Assistant Lecturer
Ms. Erika Bálega M.D.
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Ms. Ágnes Papp M.D.
István Pataki M.D.
László Sasi Szabó M.D.

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Gábor Garai M.D.
Imre Gáspár M.D.
Ms. Éva Juhász M.D.
Ms. Orsolya Kadenczki M.D.
Ms. Erzsébet Ilona Lakatos M.D.
Ms. Ágnes Magyar M.D.
Ms. Edina Mák M.D.
Zsolt Reiger M.D.

Resident
Ms. Edina Bányász M.D.
Ms. Bernadett Bíró M.D.
Ms. Beáta Bujdosó M.D.
Ms. Anita Gertrud Czifra M.D.
Ms. Klára Erdei M.D.
Ms. Boglárka Fehér M.D.
Ms. Anita Grubicza M.D.
Ms. Réka Jancsik M.D.
Péter Juhász M.D.
Ms. Nóra Kicska M.D.
Ms. Eszter Kovács M.D.
András Kretzer M.D.
Ms. Lilla Macsi M.D.
Ms. Katalin Nagy M.D.
Ms. Helga Perényi M.D.
Ms. Boglárka Schvarckopf M.D.
Ms. Orsolya Somodi M.D.
Ms. Vivien Stercel M.D.
Levente Szabó M.D.
Ms. Lilla Szegedi M.D.
Ms. Anna Szöllős M.D.
Ms. Flóra Ujhelyi M.D.
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Psychologist
Ms. Erika Tizedes

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Ms. Zsuzsa Bodnár M.A.
Ms. Kitti Boros, M.A.
Ms. Bettina Burgond M.A.
Ms. Andrea Györfiné Jánossy M.A.
<table>
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<tbody>
<tr>
<td>Physiotherapist, Occupational therapist and Rehabilitation expert</td>
<td>Ms. Anna Kövérsé Kurta M.A.</td>
</tr>
<tr>
<td></td>
<td>Ms. Gabriella Nagy M.A.</td>
</tr>
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<td>Ms. Szabina Nagy M.A.</td>
</tr>
<tr>
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<td>Ms. Éva Anna Szabados M.A.</td>
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<td>Ms. Zsófia Hőgye M.A.</td>
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<tr>
<td>Rehabilitation expert</td>
<td>Ms. Gabriella Nagy M.A.</td>
</tr>
<tr>
<td>Social Worker</td>
<td>Ms. Julianna Kavaleczné Ilyés M.A.</td>
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<tr>
<td>IT Specialist</td>
<td>Ms. Beáta Alíz Dézsi M.Sc.</td>
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<td>Social Educator</td>
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<td></td>
<td>Ms. Anna Sárközi M.D.</td>
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</table>

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<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Head of Department</td>
<td>Ede Frecska M.D., M.A., Ph.D.</td>
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<tr>
<td>Associate Professor</td>
<td>Ms. Anikó Égerházi M.D., Ph.D.</td>
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<tr>
<td>Assistant Professor</td>
<td>Roland Berecz M.D., Ph.D.</td>
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<td>Ms. Theodóra Glaub M.D.</td>
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<tr>
<td>Assistant Lecturer</td>
<td>Csaba Móré E. M.D., Ph.D.</td>
</tr>
<tr>
<td>Clinical Assistant</td>
<td>Gábor Andrássy M.D.</td>
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<td>Ms. Erzsébet Magyar M.D.</td>
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<td>Balázs Jeges M.D.</td>
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<td>Ms. Lili Kövér M.A.</td>
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<td>Ms. Emese Kulcsár M.A.</td>
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<td>Ms. Andrea Ritz M.A.</td>
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<tr>
<td>Academic Advisor</td>
<td>Ms. Réka Stébel</td>
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</tbody>
</table>
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Attila Lieber M.D.
Zoltán Örlős M.D.
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Hon. Associate Professor
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Head Surgeon
István Frendl M.D.
Chief Surgeons of the Kenézy Hospital
János Bagyó M.D.
József Balázs M.D.
Béla Barta M.D.
Ms. Danie Czakó M.D.
Zoltán Dézsi M.D.
Péter Horkay M.D.
Árpád Kiss M.D.
Bojko Lazarov Szeferinkin M.D.
László Molnár M.D.
Levente Molnár M.D.
András Nagy M.D.
Árpád Németh M.D.
Dániel Rezes M.D.
Zsigmond Varga M.D.

Surgeons of the Kenézy Hospital
Árpád Barkaszi M.D.
Miklós Biró M.D.
Aurél Bogdán M.D.
Subuh Deeb Mahmoud M.D.
Szabolcs Gorzsás M.D.
Sándor Imre Kiss M.D.
László Kiss M.D.
Ádám Lörincz M.D.

Ms.
Katalin Muraközy M.D.
Zoltán Németi M.D.
Zoltán Domokos Pap M.D.
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Károly Elek M.D.
Márton Árpád Fésüs M.D.
László Gubik M.D.
Ádám Kristóf Gulyás M.D.
Gergely Huszanyik M.D.
Dávid Kovács M.D.
Csaba Körei M.D.
Zoltán Mikó M.D.
Márton József Séber M.D.

Consultant
István Szarukán M.D.
CHAPTER 7

UNIVERSITY CALENDAR

UNIVERSITY CALENDAR FOR THE BSC IN PUBLIC HEALTH PROGRAM
ACADEMIC YEAR 2016/2017

OPENING CEREMONY: 11th September, 2016

1st SEMESTER

<table>
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<tr>
<th>Course</th>
<th>Examination Period</th>
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<tr>
<td>12th September - 23rd December, 2016 (15 weeks)</td>
<td>27th December 2016 - 10th February, 2017 (7 weeks)</td>
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2nd SEMESTER

<table>
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<th>Course</th>
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<tr>
<td>13th February - 26th May, 2017 (15 weeks)</td>
<td>29th May - 14th July 2017 (7 weeks)</td>
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In September, 2003, the introduction of the credit system became compulsory in every Hungarian university, including the University of Debrecen. The aim of the credit system is to ensure that the students’ achievements can be properly and objectively evaluated both quantitatively and qualitatively.

A credit is a relative index of cumulative work invested in a compulsory, required elective or optional subject listed in the curriculum. The credit value of a course is based upon the number of lectures, seminars and practical classes of the given subject that should be attended or participated in (so called „contact hours”), and upon the amount of work required for studying and preparing for the examination(s) (in the library or at home). Together with the credit(s) assigned to a particular subject (quantitative index), students are given grades (qualitative index) on passing an exam/course/class. The credit system that has been introduced in Hungary is in perfect harmony with the European Credit Transfer System (ECTS). The introduction of the ECTS promotes student mobility, facilitates more organization of student’ exchange programs aimed at further education in foreign institutions, and allows recognition of the students’ work, studies and achievements completed in various foreign departments by the mother institution.

Credit-based training is flexible. It provides students with a wider range of choice, enables them to make progress at an individual pace, and it also offers students a chance to study the compulsory or required subjects at a different university, even abroad. Owing to the flexible credit accumulation system, the term „repetition of a year” does not make sense any longer.

It should be noted, however, that students do not enjoy perfect freedom in the credit system either, as the system does not allow students to randomly include subjects in their curriculum or mix modules.

Since knowledge is based on previous knowledge, it is imperative that the departments clearly and thoroughly lay down the requirements to be met before students start studying a subject.

*The general principles of the credit system are the following:*

According to the credit regulations, students should obtain an average of 30 credits in each semester. The criterion of obtaining 1 credit is to spend some 30 hours (including both contact and noncontact hours) studying the given subject.

Credit(s) can only be obtained if students pass the exam on the given subject.

Students accumulate the required amount of credits by passing exams on compulsory, required elective and optional subjects. Completion of every single compulsory credit course is one of the essential prerequisites of getting a degree. Courses belonging to the required elective courses are closely related to the basic subjects, but the information provided here is more detailed, and includes material not dealt within the frame of the compulsory courses. Students do not need to take all required elective courses, but they should select some of them wisely to accumulate the predetermined amount of credits from this pool. Finally, a certain amount of credits should be obtained by selecting from the optional courses, which are usually not closely related to the basic (and thus mandatory) subjects, but they offer a different type of knowledge.

Students can be given their degree if, having met other criteria as well, they have collected 240 credits during their studies. Considering the recommended curriculum, this can be achieved in four years.

The pilot curricula show the recommended pacing of compulsory courses. If these courses are carefully supplemented with credits obtained from the necessary number of required elective and
optional courses, students can successfully accumulate the credits required for their degree within 8 semesters.

The diploma work is worth 20 credits.

Internship (supervised practices) in the final year is compulsory.

Regulations concerning the training of students in the credit system prescribe a minimum amount of credits for certain periods as outlined in the Regulations of Training and Examination (RTE).

Although Physical Education and Summer Internship (controlled practices) are not recognized by credits, they have to be completed to get the final degree (see the rules outlined in the Information section about the conditions).
### Compulsory courses for the 1. year

<table>
<thead>
<tr>
<th>Sem</th>
<th>Subjects</th>
<th>Neptun code</th>
<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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<tbody>
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<td>Basics of Informatics</td>
<td>NK_PH_BINF1</td>
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<td>Bioethics</td>
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<td>Communication skills</td>
<td>NK_PH_COMM1</td>
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<td>20</td>
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<td>Ecology</td>
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<td>1</td>
<td>First aid</td>
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<td>Introduction to Nursing and Clinical Medicine</td>
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<td>Sociology</td>
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<td>ESE 1 None</td>
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</table>
### Compulsory courses for the 1. year

<table>
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<tr>
<th>Sem</th>
<th>Subjects</th>
<th>Neptun code</th>
<th>L</th>
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<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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</thead>
<tbody>
<tr>
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<td>Basic anatomy</td>
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## Compulsory courses for the 2. year

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<th>P</th>
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<td>Basic Biochemistry</td>
<td>NK_PH_BBIOCH3</td>
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### Compulsory courses for the 2. year

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</table>
## Compulsory courses for the 3. year

<table>
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<th>P</th>
<th>Exam</th>
<th>Crd</th>
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<tbody>
<tr>
<td>1</td>
<td>Basics in health promotion and policy</td>
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<td>15</td>
<td></td>
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<td>Introduction to public health; Psychology</td>
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<td>1</td>
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<td>NK_PH_EPIC5</td>
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<td>30</td>
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### Compulsory courses for the 3. year

<table>
<thead>
<tr>
<th>Sem</th>
<th>Subjects</th>
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<th>Exam</th>
<th>Crd</th>
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<tr>
<td>2</td>
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## Compulsory courses for the 4. year

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<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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<td>Field and laboratory practice II.</td>
<td>NK_PH_FLAB7</td>
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<td>AW5</td>
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<td>Basics in health promotion and policy</td>
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<td>Nutritional health and food safety</td>
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### Compulsory courses for the 4. year

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<th>S</th>
<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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### Required elective courses for the 1. year

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<th>S</th>
<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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<td>Mathematical basics of biostatistics</td>
<td>NK_PH_MAT</td>
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### Required elective courses for the 2. year

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<th>P</th>
<th>Exam</th>
<th>Crd</th>
<th>Prerequisites of taking the subject</th>
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<td>ESE</td>
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<td>Environmental protection</td>
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<td>Modern morphological methods and possible applications</td>
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## Required elective courses for the 2. year

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<td>P</td>
<td>Exam</td>
<td>Crd</td>
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<td>Chemistry, Biochemistry</td>
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## Freely Chosen Courses

<table>
<thead>
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<th>Crd</th>
<th>Sem</th>
<th>Hours</th>
<th>Exam</th>
<th>Prerequisites of taking the subject</th>
<th>Coordinator</th>
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<tr>
<td>Institute of Behavioural Sciences, Faculty of Public Health</td>
<td>Inborn sociality-socialized individuality: a new concept</td>
<td>NK_PH_INS O_01</td>
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<td>20</td>
<td>AW5</td>
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### ACADEMIC PROGRAMME FOR THE 1ST YEAR

#### Department of Foreign Languages

**Subject:** HUNGARIAN LANGUAGE I.  
**Year, Semester:** 1st year/1st semester  
**Number of teaching hours:**  
Practical: 30

<table>
<thead>
<tr>
<th>Week</th>
<th>Practical</th>
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<tbody>
<tr>
<td><strong>1st week:</strong></td>
<td>Organization of the course</td>
</tr>
<tr>
<td><strong>2nd week:</strong></td>
<td>Introduction, the Hungarian alphabet, pronunciation rules</td>
</tr>
<tr>
<td><strong>3rd week:</strong></td>
<td>Ki vagy? (Who are you?) Personal pronouns</td>
</tr>
<tr>
<td><strong>4th week:</strong></td>
<td>Jó napot kívánok! (Greetings, formal and informal, basic situations)</td>
</tr>
<tr>
<td><strong>5th week:</strong></td>
<td>Számok (Numbers, phone numbers)</td>
</tr>
<tr>
<td><strong>6th week:</strong></td>
<td>Time expressions</td>
</tr>
<tr>
<td><strong>7th week:</strong></td>
<td>Pénz (Money, banknotes, ordinal numbers, how much? how many?)</td>
</tr>
<tr>
<td><strong>8th week:</strong></td>
<td>Mid-term test</td>
</tr>
<tr>
<td><strong>9th week:</strong></td>
<td>Hogy vagy? (How are you?)</td>
</tr>
<tr>
<td><strong>10th week:</strong></td>
<td>Milyen nyelven beszélsz? (What language do you speak?, nationalities)</td>
</tr>
<tr>
<td><strong>11th week:</strong></td>
<td>Mit csinálsz? (What are you doing? verb conjugation)</td>
</tr>
<tr>
<td><strong>12th week:</strong></td>
<td>Hová mész ma este? (Where are you going tonight? Past, present, future, where …to?)</td>
</tr>
<tr>
<td><strong>13th week:</strong></td>
<td>Revision</td>
</tr>
<tr>
<td><strong>14th week:</strong></td>
<td>End-term test</td>
</tr>
<tr>
<td><strong>15th week:</strong></td>
<td>Assessment and evaluation</td>
</tr>
</tbody>
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### Requirements

**Requirements of the language courses**

**Attendance**
Language class attendance is compulsory. The maximum percentage of allowable absences is 10% which is a total of 2 out of the 15 weekly classes. The missed classes may only be made up in the same week. Maximally, two language classes may be made up with another group and students have to ask for written permission (via e-mail) 24 hours in advance from the teacher whose class they would like to attend for a makeup because of the limited seats available. Students arriving late for the classes are not allowed to enter the class. Being late is counted as an absence. If the number of absences is more than two, the final signature is refused and the student must repeat the course. Students are required to bring the textbook or other study material given out for the course with them to each language class. Active participation is evaluated by the teacher in every class. If students’ behaviour or conduct does not meet the requirements of active participation, the teacher
may evaluate their participation with a "minus" (−). If a student has 5 minuses, the signature may be refused due to the lack of active participation in classes.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and a short minimal oral exam.

A further minimum requirement is the knowledge of 200 words per semester announced on the first week. There is a (written or oral) word quiz in the first 5-10 minutes of the class, every week. If a student has 5 or more failed or missed word quizzes he/she has to take a vocabulary exam that includes all 200 words along with the oral exam. The results of word quizzes are added to the average score of the written tests.

The oral exam consists of a role-play randomly chosen from a list of situations announced in the beginning of the course. Failing the oral exam results in failing the whole course. The result of the oral exam is added to the average of the mid-term and end-term tests.

The minimum requirement for the mid-term and the end-term tests is 50 % each. If a student does not score this much he/she has to repeat the test. Based on the final score the grades are given according to the following table:

<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 is below 60, the student once can take an oral remedial exam covering the whole semester’s material.

Consultation classes
In each language course once a week students may attend a consultation class with one of the teachers of that subject in which they can ask their questions and ask for further explanations of the material covered in that week. These classes are optional.

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

Department of Internal Medicine

Subject: INTRODUCTION TO NURSING AND CLINICAL MEDICINE

Year, Semester: 1st year/1st semester
Number of teaching hours:
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 Medical Chemistry
Subject: CHEMISTRY
Year, Semester: 1st year/1st semester
Number of teaching hours:
Lecture: 46
Seminar: 24

1st week:
Lecture: Chemistry: the science of matter. Quantum theory and the atom. Electronic structure and the periodic table. Types of
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture topics</th>
</tr>
</thead>
</table>
12th week:
Seminar: Structure of DNA and RNA. Determination of DNA sequences.

15th week:
Lecture: 3rd Control test.

Requirements
The program consists of lectures and seminars. Attendance at seminars is recorded. Students should attend at least 80% of seminars.

Three control tests (general chemistry; organic chemistry and bioorganic chemistry) covering the topics of lectures and seminars will be written during the semester. Preparation for the tests and exams should be based on the official textbooks, lectures and seminars. Knowledge of the “minimal requirements” as published on the Department’s homepage is not sufficient for the successful completion of control tests/exams. Minimal requirements simply indicate the core knowledge, the lack of which (or any part of it) necessarily results in the student failing the test/exam.

Control tests and final exams will be assessed as follows*:

Percentage (%)* | Mark
---|---
0-49 | fail (1)
50-62 | pass (2)
63-74 | satisfactory (3)
75-86 | good (4)
87-100 | excellent (5)

*Percentage values may slightly vary depending on the actual number of questions in the tests/exams.

The final exam is a written test composed of three modules: general chemistry; organic chemistry and bioorganic chemistry. Each module consists of multiple choice questions. For each module students may opt for either accepting the percentage of the corresponding control test or taking the exam test. The mark of the exam will be determined by calculating the average percentage values of the three modules (either from control tests or from exam tests). Thus the student may get full exemption from the final exam if he passed all three control tests. The student can only pass the exam if the result of all three modules is at least a “pass (2)”.

Students should declare till a given deadline whether or not they accept the control test result(s) otherwise the results will be cancelled. If the student chooses to use control test results, then he should answer questions in the final written examination only from the missing module(s). Results of control tests and exam modules can be carried to B or C chance exams.

Students who have successfully passed the exam are allowed to take one improvement exam. In case students take the exam in the second semester at the end of an exam course, then all three modules of the exam must be taken and results of previous control tests or exam modules cannot be considered.
Department of Preventive Medicine, Faculty of Public Health

Subject: BASICS OF INFORMATICS
Year, Semester: 1st year/1st semester
Number of teaching hours:
Lecture: 12
Practical: 33

1st week:
Lecture: History of computers. Principles of computers’ operation (data handling, measures, hardware, software)

2nd week:
Lecture: Component of PCs, functions and operation of peripheral units. Electronic data storage (concepts of data, file, directory) Concepts and function of operation systems, basics of Windows

3rd week:
Practical: Data files, types of and connection between data storing files, operation with data files, directory structure. Software installation

4th week:
Lecture: Networks: concept, setting, function, operation, application
Practical: Networks: concept, setting, function, operation, application

5th week:
Lecture: Text editing software (WORD x.x)
Practical: Editing, formatting, saving, printing documents; creation of header, footer and footnotes

6th week:

7th week:
Practical: Preparation of table of content and index; cross-reference, hyperlink; creation of table; styles, template application; insertion of pictures, objects, into document; operations in big documents

8th week:
Lecture: Application of spreadsheet software (EXCEL x.x)
Practical: Application of spreadsheet software (EXCEL x.x). Design of sheets, data preparation

9th week:
Practical: Entering data, calculations, functions

10th week:
Practical: Entering data, calculations, functions

11th week:
Practical: Preparation of diagrams. Formatting tables, diagrams, inserting them into Word documents

12th week:
Lecture: Computer graphics
Practical: Application of image editing software. (MS Power Point x.x) Presentation preparation

13th week:
Practical: Designing and formatting slides and adding notes to; editing equations, diagrams, tables, compilation of presentation

14th week:
Lecture: Internet, electronic mailing
Practical: Internet, electronic mailing

15th week:
Practical: Compressing files; computer viruses

Requirements

The participation in practicals is compulsory: the maximum of acceptable absence is 2 occasions. Further requirement is the submission of the assays and home assignments. The students have to
prepare an essay and to prepare homework for every topic. The average of the grades for assays and home assignments is the final grade. Exemption opportunity: If the student submit acceptable certification of the completion of a course on basics of informatics, and demonstrate the course description defined level of knowledge on computer usage, the student is not obliged to take part in the course.

Participation in seminars and practices is obligatory. In the case of more than two absences signature is refused. During the course a practical mark will be given to the students on the base of classroom tasks, homeworks, and tests.

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st week:</strong></td>
<td>Introduction to ecology. Key terms in ecology. Geosphere, Biosphere and Noosphere. Concept of the ecosystem.</td>
<td>Mountain Sickness</td>
</tr>
<tr>
<td><strong>2nd week:</strong></td>
<td>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)</td>
<td></td>
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<tr>
<td></td>
<td>Global warming and its health impacts – „Six Degrees Could Change the World”</td>
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</tr>
<tr>
<td><strong>3rd week:</strong></td>
<td>The development of the Universe. Formation and evolution of the Solar System. The origin and evolutionary history of life on planet Earth.</td>
<td>The Large Hadron Collider.</td>
</tr>
<tr>
<td><strong>4th week:</strong></td>
<td>Adaptation. Plant and animal adaptations to the environment. Tolerance. Homeostasis. The organism and its environment – part I. The physical environment (geology and soil; topography; light and temperature variation; climate and weather; catastrophes).</td>
<td></td>
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<tr>
<td></td>
<td>Thermoregulation, blood glucose homeostasis and osmoregulation.</td>
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<td></td>
<td>Analysis of exponential and logistic growth curves by Populus 5.4 program.</td>
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<tr>
<td><strong>8th week:</strong></td>
<td>National Parks of Hungary I. (Hortobágy National Park, Kiskunság National Park, Bükk National Park, Aggtelek National Park).</td>
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<td></td>
<td>Big Forest of Debrecen and Lesser Mole Rat Reserve of Hajdúbagos.</td>
<td></td>
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</tbody>
</table>
9th week:
Seminar: Orchid Habitat Restoration and Preservation.

10th week:
Lecture: Concept of 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.

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
Attendance of the lectures is recommended, but not compulsory. Students are required to attend the seminars and may not miss more than two seminars during the semester. In case a student misses more than 2 ones, the lecture book will not be signed. The attendance of the seminars will be recorded by seminar leaders
Examination:
At the end of the semester students are required to take a Final Exam. The exam includes 25 multiple choice test questions and 5 short questions (30 x 2 points). The control tests, including the topics of the lectures and seminars, will given during the semester.

Tests will be assessed as follows:

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-50</td>
<td>fail (1)</td>
</tr>
<tr>
<td>51- 59</td>
<td>pass (2)</td>
</tr>
</tbody>
</table>
The maximum score is 100% and the examination takes 60 minutes. The examination will be conducted in accordance with the Rules of Examination of the University.

Compulsory literature:
All the topics of lectures and seminars.

### Division of Emergency Medicine

**Subject:** FIRST AID  
**Year, Semester:** 1st year/1st semester  
**Number of teaching hours:**  
Lecture: 6  
Practical: 15

**1st week:**  
Lecture: Definition of “first aid”; first aid levels; time factor; behaviour of first responder in the field; the emergency call

**2nd week:**  
Lecture: Unconsciousness; airway obstruction; airway opening manoeuvres; Gábor manoeuvre

**3rd week:**  
Lecture: 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

**4th week:**  
Lecture: Reanimation on the spot – organisation problems; the theory of CPR; complications during the CPR; effect, results and success during CPR

**5th week:**  
Practical: Examination of breathing and circulation; the chest-thrust; airway opening manoeuvres; the recovery position (Gábor manoeuvre); one hour

**6th week:**  
Practical: Practicing the ventilation (one hour)

**7th week:**  
Practical: Practicing the chest compression (one hour)

**8th week:**  
Practical: CPR training without equipment (two hours)

**9th week:**  
Practical: CPR training, two-rescuer method (two hours)

**10th week:**  
Practical: Bleeding control with direct pressure and pressure point techniques; bandages and fixation; equipments, tools and manoeuvres; general rules of provisory injury therapy; pressure bandage for controlling of arterial and venous bleeding on the spot (two hours)

**11th week:**  
Practical: Bandages for head, nose; ears, eyes; chin, body and extremities; practising the bandages (two hours)

**12th week:**  
Practical: First aid in fractures, luxations, distortions and extended soft-tissue injuries; bandage for fixation with special triangle; Schantz collar; stifneck; Dessault bandage;
fixation of finger and hand fractures; usage of
Kramer splint and pneumatic splint (two hours)

| 13th week: | Practical: CPR training (two hours) |
| 14th week: | Practical: Burning; first aid in burning diseases; |

| 15th week: | Practical: Intoxication; guideline of poisoning in toxicology; typical intoxications, special signs, first aid |

Requirements
Attendance at lectures is inevitable condition for understanding the principles of the subject; attendance at practices is obligatory. The tutor may refuse the sign of Lecture Book if the student is absent from the practices more than twice in a semester. Missed practices should be made up for after consultation with the practice tutor. Facilities for a maximum of 2-make up practices are available at the Ambulance Station in Debrecen. The current knowledge of students will be tested two times in each semester in written test.

Institute of Behavioural Sciences, Faculty of Public Health

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

| 1st week: | Lecture: The meaning of bioethics and its relationship with traditional medical ethics Seminar: Interactive processing of the theme |
| 2nd week: | Lecture: The nature of ethical decision making in clinical context Seminar: Interactive processing of the theme |
| 3rd week: | Lecture: Paternalism and anti-paternalism in modern bioethics Seminar: Interactive processing of the theme |
| 4th week: | Lecture: Patients’ rights (in Hungary and in other countries) Seminar: Interactive processing of the theme |
| 5th week: | Lecture: The ethics of informed consent Seminar: Interactive processing of the theme |
| 6th week: | Lecture: The ethical aspects of living with disabilities Seminar: Interactive processing of the theme |
| 7th week: | Lecture: The epistemology and ethics of complementary medical therapies Seminar: Interactive processing of the theme |
| 8th week: | Lecture: Consultation Seminar: Written examination |

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 SKILLS
Year, Semester: 1st year/1st semester
Number of teaching hours:
Lecture: 10
Seminar: 20

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.

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:
Presentation of the field practice. Closing the semester, semester-review. Feedbacks. Written exam.

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

1st week:
Lecture: Introduction

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

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: SOCIOLOGY  
Year, Semester: 1st year/1st semester  
Number of teaching hours: 
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 Anatomy, Histology and Embryology

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

1st week: 
Lecture: Covering and lining epithelia. Glandular epithelium. Connective tissues
Seminar: Histology of epithelial tissues
skin, HE) 7. Mucous and serous glands(submandibular gland, HE)

2nd week:
Seminar: Histology Connective tissue.
Practical: Connective tissue. Demonstration:

3rd week:
Seminar: Histology Adipose tissue. Cartilage. Bone.
Demonstration:

4th week:
Seminar: Histology: Bone formation. Muscle tissue
Practical: Bone formation. Muscle tissue.

5th week:
Lecture: Gastrulation, formation of the mesoderm. Differentiation of the ectoderm, mesoderm and entoderm, folding of the embryo.
Demonstration:

6th week:
Osteology and arthrology – introduction.
Seminar: Histology of lymphatic organs
Practical: Histology of lymphatic organs.
Demonstration:
1. Thymus (HE) 2. Lymphatic follicle (colon, HE) 3. Lymph node (HE) 4. Spleen (HE) 5. Palatine tonsil (HE)

7th week:
Lecture: The upper limb. The lower limb. The skull and the back.
Seminar: Anatomy: Upper and lower limbs.
Practical: Upper and lower limbs. The bones, joints, muscles, blood vessels and nerves of the upper limb. Sites of venous injections and measurement of blood pressure. Bones, ligaments and membranes of the pelvis. The structure and function of the pelvic girdle. The bones, joints, muscles, blood vessels and nerves of the lower limb. Sites of muscular injections. Femoral canal.

Self Control Test

8th week:
Seminar: Anatomy of the head, neck and back
Practical: Anatomy of the head, neck and back.
Demonstration:

9th week:
Lecture: The heart. The trachea, lungs and pleura.
Seminar: Anatomy of the heart and the respiratory system
Practical: Anatomy of the heart and the respiratory system.
Demonstration:
The structure of the wall of the thorax. Lymphatic drainage of the mammary gland. The lungs, pleura and pleural recesses. The

10th week:
Seminar: The histology of the respiratory system
Practical: The histology of the respiratory system
1. Larynx (HE) 2. Trachea (HE) 3. Lung (HE)
Demonstration: 4. Lung injected with indian ink (HE)

11th week:
Lecture: Development and general organization of the alimentary system. The oesophagus. The stomach. Small and large intestines
Seminar: The anatomy of the alimentary system.
Practical: The anatomy of the alimentary system.
The structure and layers of the abdominal wall. The stomach, the duodenum, the liver, the pancreas and the spleen. Demonstration of some parts of the small and large intestines. The peritoneum. The abdominal aorta and its branches. Lymphatic drainage of the abdominal cavity. The diaphragm.

12th week:
Lecture: The pancreas. The liver. The system of the portal vein. The peritoneum. The retroperitoneum
Seminar: Histology of the alimentary system.
Practical: Histology of the alimentary system.

13th week:
Lecture: Neuroendocrine regulation. The hypothalamo-hypophysealis system. The pineal, thyroid, parathyroid and suprarenal glands. The kidney
Seminar: Histology of the endocrine system
Practical: Histology of the endocrine system

14th week:
Lecture: The urinary system. Male genital organs.
Seminar: Anatomy of the urogenital apparatus.

15th week:
Lecture: Female genital organs. Development of the urogenital system
Seminar: Histology of the kidney and genital organs
Practical: Histology of the kidney and genital organs
Demonstration: 4. Corpus luteum (HE) 5. Uterus, progesteron phase (HE)

Requirements

Concerning attendance, the rules written in the Regulations Governing Admission, Education and Examinations of the University are valid. The presence in practices, seminars and lectures will be recorded. The head of the department may refuse to sign the Lecture Book if a student is absent more than twice from practices and seminars in one semester even if he/she has an acceptable reason.
The program of the lectures, seminars and practices is written in the University Calendar.

Two midterm examinations (SCTs) will be held, one on the 7 week and on the 15 week. The exams cover the topics of lectures, seminars and practices of the second semester.

The midterm exams will be evaluated with points and the points of the two examinations will be added. Students with scores higher than 60% earn an exemption from the final examination with a mark that will be calculated on the basis of the overall performance on the two midterm
examinations.

The end-semester exam is a written exam that covers the topics of lectures, seminars and practices of the semester. The exam will be evaluated with points that will be converted into final mark in the following way:

- 0 – 59 % fail (1)
- 50 – 62.5 % pass (2)
- 63 – 75 % satisfactory (3)
- 76 – 87.5 % good (4)
- 88 – 100 % excellent (5)

Registration for examinations: through the NEPTUN system.

Department of Foreign Languages

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

1st week: Practical: Repetition and revision of 1st semester topics

2nd week: Practical: Mit kérsz? (What would you like? In a buffet)

3rd week: Practical: Formal and informal style, Accusative suffixes

4th week: Practical: Kérsz egy kávét? (Would you like a coffee? Adjective forming suffixes)

5th week: Practical: Tud, akar, szeret, szeretne (Can, want, like, would like)

6th week: Practical: Word formation, infinitives

7th week: Practical: Milyen idő van ma? (Weather)

8th week: Practical: Mid-term test
Self Control Test

9th week: Practical: Irregular verbs

10th week: Practical: Postán, vasútállomáson (At the post office, train station)

11th week: Practical: Mit eszünk ma este? (Food and cooking; negation)

12th week: Practical: Tetszik a ruhád (Colors, possessive suffixes)

13th week: Practical: Revision

14th week: Practical: End-term test
Self Control Test

15th week: Practical: Oral minimum exam. Assessment and evaluation
Requirements

Requirements of the language courses

Attendance

Language class attendance is compulsory. The maximum percentage of allowable absences is 10% which is a total of 2 out of the 15 weekly classes. The missed classes may only be made up in the same week. Maximally, two language classes may be made up with another group and students have to ask for written permission (via e-mail) 24 hours in advance from the teacher whose class they would like to attend for a makeup because of the limited seats available. Students arriving late for the classes are not allowed to enter the class. Being late is counted as an absence. If the number of absences is more than two, the final signature is refused and the student must repeat the course. Students are required to bring the textbook or other study material given out for the course with them to each language class. Active participation is evaluated by the teacher in every class. If students’ behaviour or conduct does not meet the requirements of active participation, the teacher may evaluate their participation with a "minus" (-). If a student has 5 minuses, the signature may be refused due to the lack of active participation in classes.

Testing, evaluation

In each Hungarian language course, students must sit for 2 written language tests and a short minimal oral exam.

A further minimum requirement is the knowledge of 200 words per semester announced on the first week. There is a (written or oral) word quiz in the first 5-10 minutes of the class, every week. If a student has 5 or more failed or missed word quizzes he/she has to take a vocabulary exam that includes all 200 words along with the oral exam. The results of word quizzes are added to the average score of the written tests.

The oral exam consists of a role-play randomly chosen from a list of situations announced in the beginning of the course. Failing the oral exam results in failing the whole course. The result of the oral exam is added to the average of the mid-term and end-term tests.

The minimum requirement for the mid-term and the end-term tests is 50% each. If a student does not score this much he/she has to repeat the test. Based on the final score the grades are given according to the following table:

<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 is below 60, the student once can take an oral remedial exam covering the whole semester’s material.

Consultation classes

In each language course once a week students may attend a consultation class with one of the teachers of that subject in which they can ask their questions and ask for further explanations of the material covered in that week. These classes are optional.

Course book: See the website of the department.

Website: Oral exam topics and vocabulary minimum lists are available from the website of the Department of Foreign Languages: ilekt.med.unideb.hu

Subject: MEDICAL LATIN
Year, Semester: 1st year/2nd semester
Number of teaching hours:
Practical: 30
**1st week:**
Practical: Course organization and introduction.
The Latin and Greek alphabet and pronunciation.
Basic terminology of health sciences

**2nd week:**
Practical: Planes and directional terms in anatomical terminology

**3rd week:**
Practical: The parts of the body. Latin and Greek words and word roots

**4th week:**
Practical: Genitive case and the plural forms.

**5th week:**
Practical: The skeleton of human body; basic terms of osteology; names of bones; an etymological approach. Word formation: adjectival suffixes

**6th week:**
Practical: Formation of adjectives

**7th week:**
Practical: Revision. Mid-term test

**8th week:**
Practical: Regions of the body
Self Control Test

**9th week:**
Practical: Joints

**10th week:**
Practical: Formation of complex adjectives

**11th week:**
Practical: Formation of nouns from verbs, Latin prefixes

**12th week:**
Practical: Muscles

**13th week:**
Practical: Latin and Greek numerals

**14th week:**
Practical: Revision. End-term test
Self Control Test

**15th week:**
Practical: Assessment and evaluation

**Requirements**

Requirements of the language courses

**Attendance**
Language class attendance is compulsory. The maximum percentage of allowable absences is 10% which is a total of 2 out of the 15 weekly classes. Students arriving late for the classes are not allowed to enter the class. Being late is counted as an absence. If the number of absences is more than two, the final signature is refused and the student must repeat the course. Students are required to bring the textbook or other study material given out for the course with them to each language class. Active participation is evaluated by the teacher in every class. If students’ behaviour or conduct does not meet the requirements of active participation, the teacher may evaluate their participation with a "minus" (-). If a student has 5 minuses, the signature may be refused due to the lack of active participation in classes.

**Testing, evaluation**
In each language course, students must sit for 2 written language tests and a short minimal oral exam.

A further minimum requirement is the knowledge of 300 words per semester announced on the first week. There is a (written or oral) word quiz in the first 5-10 minutes of the class, every week. If a student has 5 or more failed or missed word quizzes he/she has to take a vocabulary exam that includes all 300 words along with the oral exam. The results of word quizzes are added to the average score of the written tests.

Based on the final score the grades are given according to the following table:

<table>
<thead>
<tr>
<th>Final score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 59</td>
<td>fail (1)</td>
</tr>
</tbody>
</table>
ENGLISH PROGRAM BULLETIN BSC IN PUBLIC HEALTH

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-69</td>
<td>pass (2)</td>
<td></td>
</tr>
<tr>
<td>70-79</td>
<td>satisfactory (3)</td>
<td></td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
<td></td>
</tr>
<tr>
<td>90-100</td>
<td>excellent (5)</td>
<td></td>
</tr>
</tbody>
</table>

If the final score is below 60, the student once can take an oral remedial exam covering the whole semester’s material.

Consultation classes

In each language course once a week students may attend a consultation class with one of the teachers of that subject in which they can ask their questions and ask for further explanations of the material covered in that week. These classes are optional.

Course book: See the website of the department.

Website: Oral exam topics and vocabulary minimum lists are available from the website of the Department of Foreign Languages: ilekt.med.unideb.hu

Department of Preventive Medicine, Faculty of Public Health

Subject: BIOSTATISTICS
Year, Semester: 1st year/2nd semester
Number of teaching hours:
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
### ENGLISH PROGRAM BULLETIN BSC IN PUBLIC HEALTH

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>13th week</td>
<td>Simple linear regression</td>
<td>Simple linear regression</td>
</tr>
<tr>
<td>14th week</td>
<td>Multiple linear regression</td>
<td>Multiple linear regression</td>
</tr>
<tr>
<td>15th week</td>
<td>Survival tables, Kaplan-Meyer analysis, estimating incidence rates and ratios</td>
<td>The skeleton of human body; basic terms of osteology; names of bones; an etymological approach. Word formation: adjectival suffixes</td>
</tr>
</tbody>
</table>

### Requirements

Participation in seminars and practices is obligatory. In the case of more than two absences signature is refused. During the course a practical mark will be given to the students on the base of classroom tasks, homeworks, and tests.

### Subject: GENETICS AND MOLECULAR BIOLOGY

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Self Control Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>Introduction to molecular genetics; structure of the DNA molecule; the genetic code</td>
<td></td>
</tr>
<tr>
<td>2nd week</td>
<td>DNA replication and recombination</td>
<td></td>
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<tr>
<td>3rd week</td>
<td>Transmission genetics; genes and alleles; Mendel’s laws; genotype and phenotype</td>
<td></td>
</tr>
<tr>
<td>4th week</td>
<td>The chromosomal basis of heredity. Human cytogenetics; chromosomes; chromosome alterations</td>
<td></td>
</tr>
<tr>
<td>5th week</td>
<td>Transformation and transduction; molecular mechanisms of crossing over 1st self control test</td>
<td></td>
</tr>
<tr>
<td>6th week</td>
<td>Molecular genetics of gene expression; molecular mechanism of gene regulation</td>
<td></td>
</tr>
<tr>
<td>7th week</td>
<td>Mutations and DNA repair; the role of mutations in the development and progression of diseases</td>
<td></td>
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<tr>
<td>8th week</td>
<td>Genetic polymorphisms; the role of genetic polymorphisms in the predisposition of different diseases</td>
<td></td>
</tr>
<tr>
<td>9th week</td>
<td>Introduction to genetic engineering; application of recombinant DNA technology in biotechnology and medicine</td>
<td></td>
</tr>
<tr>
<td>10th week</td>
<td>Molecular genetics of the cell cycle; the genetic origin of cancer</td>
<td></td>
</tr>
<tr>
<td>11th week</td>
<td>Molecular evolution and population genetics; the genetic basis of complex inheritance</td>
<td></td>
</tr>
<tr>
<td>12th week</td>
<td>Nucleic acid manipulations Polymerase chain reaction; Recombinant molecular biological techniques</td>
<td></td>
</tr>
</tbody>
</table>
13th week:
Lecture: New molecular biological techniques in the diagnosis of diseases; molecular targeted therapies

14th week:
Lecture: The Human Genome Programme (overview, advantages and results)
3rd self control test

15th week:
Lecture: Summary lectures, 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.

Self Control Test: Only students who attended on 90% of lectures are allowed to write the self control tests. The dates and the topics for self control test will be announced on the first week of the semester. Based on the scores of the self control tests you will receive a „recommended final mark.” If you accept this mark it will be your „final mark”.

End of Semester Exam: the exam is a written test from all the material covered during the semester. Who accepts the recommended mark is exempted from the ESE in the examination period.

Subject: HEALTH (& LIBRARY) INFORMATICS I.
Year, Semester: 1st year/2nd semester
Number of teaching hours:
Lecture: 10
Practical: 20

1st week:
Lecture: Information and data processing, The concept of information Steps of information processing

2nd week:
Lecture: Concept, techniques, advantages and disadvantages of coding, Updating of codes

3rd week:
Lecture: Foundations of database management, data model, database definition

4th week:
Practical: The elements of data model, database operations

5th week:
Practical: Database management operations: MS Excel

6th week:
Lecture: TEST
Self Control Test

7th week:
Practical: Database management, MS Access: defining keys, table design, layout, interconnection

8th week:
Practical: Management of forms

9th week:
Practical: Queries, reports

10th week:
Practical: IT networks, remote data processing, file transfer
<table>
<thead>
<tr>
<th>Week</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th week</td>
<td>Practical: Using the Internet: search engines, E-mail</td>
</tr>
<tr>
<td>12th week</td>
<td>Lecture: Hungarian and international public health data sources via the Internet</td>
</tr>
<tr>
<td>13th week</td>
<td>Practical: Hungarian and international public health data sources via the Internet</td>
</tr>
<tr>
<td>14th week</td>
<td>Practical: Geographic information system (GIS) visualization methods, Application of GIS in public health</td>
</tr>
<tr>
<td>15th week</td>
<td>Practical: TEST Self Control Test</td>
</tr>
</tbody>
</table>

**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: HEALTH PSYCHOLOGY**

Year, Semester: 1st year/2nd semester

Number of teaching hours:
Lecture: 30

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>Lecture: Basics of Health psychology</td>
</tr>
<tr>
<td>2nd week</td>
<td>Lecture: Factors influencing health status</td>
</tr>
<tr>
<td>3rd week</td>
<td>Lecture: Humor, Optimism, Physical Health</td>
</tr>
<tr>
<td>4th week</td>
<td>Lecture: Positive Psychology</td>
</tr>
<tr>
<td>5th week</td>
<td>Lecture: Depression, Suicide, Anxiety</td>
</tr>
<tr>
<td>6th week</td>
<td>Lecture: Health Anxiety, Somatization</td>
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<tr>
<td>Week</td>
<td>Lecture</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7th</td>
<td>Lecture: Pain - psychological aspects of pain, definitions and theories</td>
</tr>
<tr>
<td>8th</td>
<td>Lecture: Pain - the role of psychology in pain treatment</td>
</tr>
<tr>
<td>9th</td>
<td>Lecture: Burnout in helping professions</td>
</tr>
<tr>
<td>10th</td>
<td>Lecture: Prevention and treatment of burnout</td>
</tr>
<tr>
<td>11th</td>
<td>Lecture: Health risk behaviours: tobacco, alcohol dependence</td>
</tr>
<tr>
<td>12th</td>
<td>Lecture: Health risk behaviours: drug dependence, sexual behaviour</td>
</tr>
<tr>
<td>13th</td>
<td>Lecture: Health risk behaviours: gambling, internet addiction</td>
</tr>
<tr>
<td>14th</td>
<td>Lecture: Health risk behaviours: eating disorders, obesity, exercise dependence</td>
</tr>
<tr>
<td>15th</td>
<td>Lecture: Mindfullness (demonstration)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Lecture: Definition of health and its determinants</td>
</tr>
<tr>
<td>2nd</td>
<td>Lecture: Monitoring and analysing health state:options and methods</td>
</tr>
<tr>
<td>3rd</td>
<td>Lecture: Theory and practice in health promotion</td>
</tr>
<tr>
<td>4th</td>
<td>Lecture: Allocating public health in the medical and health sciences, evolution and development. Public health: successes, failures and challenges in the 21st century</td>
</tr>
<tr>
<td>5th</td>
<td>Lecture: Relation between health and economy</td>
</tr>
<tr>
<td>6th</td>
<td>Lecture: -</td>
</tr>
<tr>
<td>7th</td>
<td>Lecture: Levels of prevention</td>
</tr>
<tr>
<td>8th</td>
<td>Lecture: Easter</td>
</tr>
<tr>
<td>9th</td>
<td>Lecture: Organizational structure for public health services in Hungary</td>
</tr>
<tr>
<td>10th</td>
<td>Lecture: Global indicators of health state I. Public health databases</td>
</tr>
<tr>
<td>11th</td>
<td>Lecture: Screening programs. Public health programmes</td>
</tr>
<tr>
<td>12th</td>
<td>Lecture: North Karelia Program</td>
</tr>
<tr>
<td>13th</td>
<td>Lecture: WHO Health 2020</td>
</tr>
<tr>
<td>14th</td>
<td>Lecture: North Karelia Program</td>
</tr>
<tr>
<td>15th</td>
<td>Lecture: National Public Health Program</td>
</tr>
</tbody>
</table>
Division of Cell Biology

Subject: CELL BIOLOGY
Year, Semester: 1st year/2nd semester
Number of teaching hours:
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, D1=M+E
Second self-control: if M=50% or more, D2=M+E

Grade based on self-controls is offered according to the final score (F), which is calculated as
F=(D1+D2)/4 (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=(D1+D2)/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: BASICS OF PEDAGOGY
Year, Semester: 1st year/2nd semester
Number of teaching hours:
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)
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Week</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>11th week</td>
<td>Lecture: Scenes of pedagogical activity (family, school, boarding schools, etc.)</td>
<td>14th week</td>
<td>Lecture: Theoretical and practical issues of planning</td>
</tr>
<tr>
<td>12th week</td>
<td>Lecture: Key participants and their communication</td>
<td>15th week</td>
<td>Lecture: Pedagogical activity in health care</td>
</tr>
<tr>
<td>13th week</td>
<td>Lecture: Consultation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Requirements**

Introduction, Based concept of pedagogy; Principles of pedagogy activity; Theories and trends in pedagogy; Elements of pedagogical influence; Process of pedagogical influence; Fields of personality development; Process of education; Process of teaching and learning; Edifying conduct; Methodology; Science of pedagogical activity; Key participants and their communication; Theoretical and practical issues of planning; Pedagogical activity in health care; Practice (Ibolya Utcai Általános Iskola, Debrecen)

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>Lecture: Introduction to sociology of health, revision of basic sociological concepts and the sociological perspective</td>
</tr>
<tr>
<td>2nd week</td>
<td>Lecture: Theories of disease causation, the social determinants of health and disease</td>
</tr>
<tr>
<td>3rd week</td>
<td>Lecture: Society and changing patterns of disease, historical and cross regional perspectives.</td>
</tr>
<tr>
<td>4th week</td>
<td>Lecture: Sociology and public health, economy and health policy. The sociology of poverty-inequality and health</td>
</tr>
<tr>
<td>5th week</td>
<td>Lecture: Social structure and health-gender, age and ethnicity</td>
</tr>
<tr>
<td>6th week</td>
<td>Lecture: Case studies: morbidity and mortality in Nigeria, China, Hungary and the UK from the sociological perspective</td>
</tr>
<tr>
<td>7th week</td>
<td>Lecture: Health behaviour and illness behaviour, the case of chronic illness</td>
</tr>
<tr>
<td>8th week</td>
<td>Lecture: The sociology of health care organisations</td>
</tr>
<tr>
<td>9th week</td>
<td>Lecture: Informal health care, community care and self help</td>
</tr>
<tr>
<td>10th week</td>
<td>Lecture: Medicalisation</td>
</tr>
<tr>
<td>11th week</td>
<td>Lecture: Deviance, sick role, anomie and stigma</td>
</tr>
<tr>
<td>12th week</td>
<td>Lecture: Sociological research methods, measuring health outcomes, the anatomy of research articles</td>
</tr>
</tbody>
</table>
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
CHAPTER 10

ACADEMIC PROGRAMME FOR THE 2ND YEAR

Department of Biochemistry and Molecular Biology

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

1st week:

2nd week:

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:
Lecture: Amino acid metabolism II. The urea cycle and its regulation. Decarboxylation and carboxylation reactions in the amino acid metabolism. C1 transfer and transmethylation, related enzyme and vitamin deficiencies. Fate of the carbon skeleton of amino acids: glucogenic and ketogenic amino acids. Examples: degradation of isoleucine and valine,
phenylalanine and related enzyme deficiencies (PKU). Precursor functions: NO, creatine, polyamines, carnitine, catecholamines.

12th week:

13th week:

14th week:

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 obligatory. 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 the department: (http://bmbi.med.unideb.hu). (Downloads/educational in English/Physiotherapists/Basic Biochemistry/2014

Department of Foreign Languages

Subject: PROFESSIONAL HUNGARIAN I.
Year, Semester: 2nd year/1st semester
Number of teaching hours:
Practical: 30

1st week:
Practical: Revision, pretest
2nd week:
Practical: 1. lecke Bemutatkozás 1.

3rd week:
Practical: 1. lecke Bemutatkozás 2.

4th week:
Practical: 2. lecke Foglalkozások 1.

5th week:
Practical: 2. lecke Foglalkozások 2.

6th week:
Practical: Revision

7th week:
Practical: Mid-term test

8th week:
Practical: 3. lecke A családom 1.

9th week:
Practical: 3. lecke A családom 2.

10th week:
Practical: 4. lecke A testem

11th week:
Practical: 5. lecke Kinek van...?

12th week:
Practical: Practice

13th week:
Practical: Revision

14th week:
Practical: End-term test

15th week:
Practical: Evaluation

Requirements

Requirements of the language courses

Attendance
Language class attendance is compulsory. The maximum percentage of allowable absences is 10% which is a total of 2 out of the 15 weekly classes. Students arriving late for the classes are not allowed to enter the class. Being late is counted as an absence. If the number of absences is more than two, the final signature is refused and the student must repeat the course. Students are required to bring the textbook or other study material given out for the course with them to each language class. Active participation is evaluated by the teacher in every class. If students’ behaviour or conduct does not meet the requirements of active participation, the teacher may evaluate their participation with a "minus" (-). If a student has 5 minuses, the signature may be refused due to the lack of active participation in classes.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and a short minimal oral exam. A further minimum requirement is the knowledge of 200 words per semester announced on the first week. There is a (written or oral) word quiz in the first 5-10 minutes of the class, every week. If a student has 5 or more failed or missed word quizzes he/she has to take a vocabulary exam that includes all 200 words along with the oral exam. The results of word quizzes are added to the average score of the written tests.

The oral exam consists of a role-play randomly chosen from a list of situations announced in the beginning of the course. Failing the oral exam results in failing the whole course. The result of the oral exam is added to the average of the mid-term and end-term tests.

Based on the final score the grades are given according to the following table:

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<thead>
<tr>
<th>Final score</th>
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</tr>
</thead>
<tbody>
<tr>
<td>0 - 59</td>
<td>fail (1)</td>
</tr>
<tr>
<td>60-69</td>
<td>pass (2)</td>
</tr>
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<td>satisfactory (3)</td>
</tr>
<tr>
<td>80-89</td>
<td>good (4)</td>
</tr>
</tbody>
</table>
If the final score is below 60, the student once can take an oral remedial exam covering the whole semester’s material.

Consultation classes
In each language course once a week students may attend a consultation class with one of the teachers of that subject in which they can ask their questions and ask for further explanations of the material covered in that week. These classes are optional.

Course book: See the website of the department.
Website: Oral exam topics and vocabulary minimum lists are available from 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:
Lecture: 30

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

2nd week:
Lecture: Legal norm

3rd week:
Lecture: Legal relationship

4th week:
Lecture: Legal liability

5th week:
Lecture: Law system

6th week:
Lecture: Sources of law

7th week:
Lecture: Force of Law

8th week:
Lecture: Legal interpretation

9th week:
Lecture: Law enforcement

10th week:
Lecture: Theories of state formation

11th week:
Lecture: State sovereignty

12th week:
Lecture: State functions

13th week:
Lecture: Civil service legal disputes

14th week:
Lecture: Three branches of government

15th week:
Lecture: The institutions of collective labour law

Requirements
Evolution of Legal Thinking; Brief History of Law; Ethics & Law; Concept of Law; Sources of Law; The Legal System(s); Fundamental Rights; Human Rights; The Right To Health and the United Nations; The World Health Organization; The Role of the State (formation, function, sovereignty); The Functions of Government; The Court System, Legal Disputes, Law Enforcement; The Role of the European Union
## Department of Medical Microbiology

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>The microbial word. Cell-mediated and antibody-mediated (humoral) immunity. Active and passive immunization</td>
<td>General mycology. Medically important fungi</td>
</tr>
<tr>
<td>2nd week</td>
<td>Laboratory diagnosis of bacterial and viral infections. Sterilization and disinfection</td>
<td>The structure and classification of viruses. The pathogenesis of viral diseases</td>
</tr>
<tr>
<td>3rd week</td>
<td>Structure of bacterial cells. Essential and nonessential components. Exotoxins and endotoxins. Non-toxic virulence factors</td>
<td>Respiratory tract infections caused by viruses</td>
</tr>
<tr>
<td>4th week</td>
<td>Overview of the major Gram- positive bacteria</td>
<td>Agents of viral gastroenteritis. Hepatitis viruses</td>
</tr>
<tr>
<td>5th week</td>
<td>Overview of the major and Gram- negative bacteria</td>
<td>Agents of viral skin rash. Congenital virus infections</td>
</tr>
<tr>
<td>6th week</td>
<td>Bacterial respiratory tract diseases. Skin and soft tissue infections caused by bacteria</td>
<td>The protozoal diseases</td>
</tr>
<tr>
<td>7th week</td>
<td>Sexually transmitted bacterial diseases. Central nervous system diseases caused by bacteria</td>
<td>Helminths. Ectoparasites</td>
</tr>
<tr>
<td>8th week</td>
<td></td>
<td>Consultation</td>
</tr>
</tbody>
</table>

### 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:
Lecture: 30
Seminar: 15

1st week:
Lecture: Membrane transport mechanisms; humoral regulation of cell function; significance of the membrane potential in the regulation of cell function
Seminar: Introduction to physiology, requirements; general overview of the structure and function of the cell membrane; role of membrane defects in the pathomechanism of diseases

2nd week:
Lecture: Compartmentalization of body fluids; blood as a circulating body fluid; plasma and formed elements
Seminar: Types of anaemia; redistribution of body fluid compartments in pathological conditions

3rd week:
Lecture: Blood typing; haemostasis; mechanisms against bleeding; definition and significance of homeostasis; homeostatic parameters
Seminar: Clinical significance of blood typing, Rh+ incompatibility; disturbed haemostasis; anticoagulant agents

4th week:
Lecture: Cardiovascular physiology: electrical and contractile properties of the heart; impulse generation and conduction; basics and diagnostic significance of electrocardiography; the heart as a pump; the cardiac cycle; neural and humoral regulation of cardiac function
Seminar: Starling mechanism as a compensatory mechanism in normal and pathological conditions, analysis of normal electrocardiogram

5th week:
Lecture: Cardiovascular physiology: characteristics of peripheral circulation; principles of haemodynamics; functional characteristics of blood vessels; vascular tone; main determinant of arterial blood pressure; reflex and humoral control of blood pressure and redistribution of cardiac output
Seminar: Discussion of lectured topics focused on the blood pressure and its regulation

6th week:
Lecture: Respiratory physiology: mechanics of mechanics of breathing; alveolar ventilation; gas transport in the blood; neural and chemical control of breathing
Seminar: Discussion of lectured topics focused on the static and dynamic respiratory parameters

7th week:
Lecture: Motric and secretory function of the gastrointestinal tract; digestion, absorption; nutrition (food requirements, regulation of food intake); energy balance, thermoregulation
Seminar: Discussion of lectured topics completed with pathophysiological relations

8th week:
Lecture: General aspects of renal function; glomerular filtration; types of tubular transport processes; characteristic parameters of the renal function: glomerular filtration rate (GFR), filtration fraction (FF), clearance (C) and extraction coefficient (E). Principles of the volume and osmoregulation; characteristics of the salt and water reabsorption; pH regulation; role of the respiration and excretion in the acid-base balance; micturition
Seminar: The role of the kidney in the homeostatic regulation

9th week:
Lecture: Hormonal regulation; paracrine and endocrine mechanisms; hypothalamo-hypophyseal system; neurohormones and tropic hormones
Seminar: General overview of the hormonal regulation; relationships of neural an humoral regulation
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Seminar Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th week</td>
<td>Thyroid hormones (T3 and T4); endocrine regulation of intermediate metabolism and basal metabolic rate; physiological effects of corticosteroids</td>
<td>Hormonal regulation of cellular metabolism, especially the metabolism of skeletal muscle cells</td>
</tr>
<tr>
<td>11th week</td>
<td>Significance of the ionized calcium concentration in the blood; regulation of calcium handling; endocrine function of the pancreas; significance and regulation of blood glucose level</td>
<td>Tetania; hypo- and hyperglycaemia</td>
</tr>
<tr>
<td>12th week</td>
<td>Sexual hormones; somatic and autonomic nervous system; introduction to neural control; voluntary and reflex regulation</td>
<td>Genital and extra genital effects of sexual steroids</td>
</tr>
<tr>
<td>13th week</td>
<td>Sensory function of the nervous system; stimulus, receptor, conduction of excitation; cortical processing; physiological basis of vision and hearing; motor function of nervous system; function and regulation of skeletal muscles; cortical, subcortical and spinal levels of regulation, coordinative function of cerebellum</td>
<td>Summary of somatic neural regulation</td>
</tr>
<tr>
<td>14th week</td>
<td>Regulation of visceral functions; common and different features of sympathetic and parasympathetic regulation; integrated function of the sympathetic nervous system and the adrenal medulla</td>
<td>Summary of the neural control of visceral functions</td>
</tr>
<tr>
<td>15th week</td>
<td>Summary, consultation</td>
<td>Consultation</td>
</tr>
</tbody>
</table>

**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. For continuous updates on all education-related matters, please check the departmental web-site (http://phys.dote.hu).

The lectures of Physiology are listed at the web site of the Department of Physiology (http://phys.dote.hu)

**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)
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.

Department of Preventive Medicine, Faculty of Public Health

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

1st week:
Seminar: Epidemiology — Definition, functions, and characteristics

2nd week:
Lecture: Studying populations - basic demography

3rd week:
Lecture: The Phenomenon of Disease

4th week:
Seminar: Measuring Disease and Exposure

5th week:
Lecture: Standardization of rates and ratios

6th week:
Lecture: Relating risk factors

7th week:
Lecture: Analytic study design

8th week:
Lecture: Causal inference

9th week:
Lecture: Sources of error

10th week:
Seminar: Multicausality — Confounding

11th week:
Lecture: Multicausality — Effect modification

12th week:
Seminar: Multicausality — Analysis approaches

13th week:
Lecture: Data analysis and interpretation

14th week:
Lecture: Practical aspects of epidemiologic research

15th week:
Lecture: Role of epidemiology
Practical: Needs for epidemiological research and the utilization of their results

Requirements
Participation in seminars and practices is obligatory. In the case of more than two absences signature is refused. During the course a practical mark will be given to the students on the base of classroom tasks, homeworks, and tests.
Subject: HEALTH (& LIBRARY) INFORMATICS II.
Year, Semester: 2nd year/1st semester
Number of teaching hours:
Lecture: 10
Practical: 20

1st week:
Lecture: The basics of nosology (classification of diseases)

2nd week:
Practical: The most important classifications of health-care and public health: BNO, WHO, SNOWMED

3rd week:
Practical: The most important classifications of health-care and public health: BNO, WHO, SNOWMED

4th week:
Lecture: Health-care administration. Health-care information systems and databases

5th week:
Practical: Data-flow in health-care

6th week:
Practical: Primary care, specialty care, hospital, public health information systems

7th week:
Practical: Library information systems

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.


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:
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

8th week:
Lecture: Infectious diseases Acute 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 Biochemistry and Molecular Biology

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

1st week:
Seminar: Introduction

2nd week:
Seminar: Biochemistry of liver, biotransformation

3rd week:
Seminar: Metabolism iron, hem

4th week:
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 the department: ().

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 obligatory. The signature of the Lecture Book may be refused if a student is absent from more than 1 seminars.

Prerequisites: Basic Biochemistry

Department of Foreign Languages

Subject: PROFESSIONAL HUNGARIAN II.
Year, Semester: 2nd year/2nd semester
Number of teaching hours:
Practical: 30

1st week:
Practical: Revision

2nd week:
Practical: Pretest

3rd week:
Practical: 6. lecke Melyik a jobb?

4th week:
Practical: 6. lecke Melyik a jobb?

5th week:
Practical: 7. lecke Napirend

6th week:
Practical: 7. lecke Napirend

7th week:
Practical: Revision. Mid-term test

8th week:
Practical: 8. lecke Szabadidő

9th week:
Practical: 8. lecke Szabadidő

10th week:
Practical: 8. lecke Hol voltál tegnap?

11th week:
Practical: 9. lecke Hol voltál tegnap?

12th week:
Practical: 9. lecke Hol voltál tegnap?

13th week:
Practical: 10. lecke Mit csináltál tegnap?

14th week:
Practical: 10. lecke Mit csináltál tegnap?

15th week:
Practical: Revision. End-term test

Requirements
Language class attendance is compulsory. The maximum percentage of allowable absences is 10% which is a total of 2 out of the 15 weekly classes. Students arriving late for the classes are not allowed to enter the class. Being late is counted as an absence. If the number of absences is more than two, the final signature is refused and the student must repeat the course. Students are required to bring the textbook or other study material given out for the course with them to each language
class. Active participation is evaluated by the teacher in every class. If students’ behaviour or conduct does not meet the requirements of active participation, the teacher may evaluate their participation with a "minus" (-). If a student has 5 minuses, the signature may be refused due to the lack of active participation in classes.

Testing, evaluation
In each Hungarian language course, students must sit for 2 written language tests and a short minimal oral exam.

A further minimum requirement is the knowledge of 200 words per semester announced on the first week. There is a (written or oral) word quiz in the first 5-10 minutes of the class, every week. If a student has 5 or more failed or missed word quizzes he/she has to take a vocabulary exam that includes all 200 words along with the oral exam. The results of word quizzes are added to the average score of the written tests.

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<tr>
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If the final score is below 60, the student once can take an oral remedial exam covering the whole semester’s material.

Consultation classes
In each language course once a week students may attend a consultation class with one of the teachers of that subject in which they can ask their questions and ask for further explanations of the material covered in that week. These classes are optional.

Course book: See the website of the department.

Website: Oral exam topics and vocabulary minimum lists are available from 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 II.
Year, Semester: 2nd year/2nd semester
Number of teaching hours:
Lecture: 30

1st week:
Lecture: Introduction to Contracts

2nd week:
Lecture: Contractual Capacity

3rd week:
Lecture: Contracts in Writing

4th week:
Lecture: Agency

5th week:
Lecture: Relationship of Principal and Agent

6th week:
Lecture: The Law of Torts

7th week:
Lecture: Intentional Torts
### ENGLISH PROGRAM BULLETIN BSC IN PUBLIC HEALTH

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th</td>
<td>Negligence</td>
</tr>
<tr>
<td>9th</td>
<td>Strict Liability</td>
</tr>
<tr>
<td>10th</td>
<td>Sales and Product Liability</td>
</tr>
<tr>
<td>11th</td>
<td>Consumer Protection</td>
</tr>
<tr>
<td>12th</td>
<td>Landlord – Tenant</td>
</tr>
<tr>
<td>13th</td>
<td>Corporations</td>
</tr>
<tr>
<td>14th</td>
<td>Structure and Management</td>
</tr>
<tr>
<td>15th</td>
<td>Starting a Business</td>
</tr>
</tbody>
</table>

### Requirements

Brief History of International Law; Development of International Law; Politics & Law; The subjects of International Law; International Treaties; International Organisations; The United Nations; Expert Bodies; International Court of Justice; International criminal courts and tribunals; Recognition & Territory; Use of Force by States; Settlement of disputes by peaceful means; The law of treaties

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

**Subject:** ENVIRONMENTAL HEALTH  
**Year, Semester:** 2nd year/2nd semester  
**Number of teaching hours:**  
- Lecture: 30  
- Seminar: 26  
- Practical: 4

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Scope of environmental health</td>
</tr>
<tr>
<td></td>
<td>Seminar: Introduction to the seminar work,</td>
</tr>
<tr>
<td></td>
<td>requirement of the subjects, instructions for</td>
</tr>
<tr>
<td></td>
<td>preparing power point presentation by the 14th</td>
</tr>
<tr>
<td></td>
<td>week of the semester</td>
</tr>
<tr>
<td>2nd</td>
<td>Introduction to toxicology</td>
</tr>
<tr>
<td></td>
<td>Seminar: The disaster of Seveso – case study</td>
</tr>
<tr>
<td>3rd</td>
<td>Air pollution and health</td>
</tr>
<tr>
<td></td>
<td>Seminar: The London smog of December 1952 – case</td>
</tr>
<tr>
<td></td>
<td>study</td>
</tr>
<tr>
<td>4th</td>
<td>Water pollution and health</td>
</tr>
<tr>
<td></td>
<td>Seminar: Environmental arsenic poisoning – case</td>
</tr>
<tr>
<td></td>
<td>study</td>
</tr>
<tr>
<td>5th</td>
<td>Impacts of soil contamination on human health</td>
</tr>
<tr>
<td></td>
<td>Seminar: Environmental cadmium poisoning – case</td>
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<tr>
<td></td>
<td>study</td>
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<tr>
<td>6th</td>
<td>Health effects of non-ionising radiation and</td>
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<tr>
<td></td>
<td>electromagnetic fields</td>
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<tr>
<td></td>
<td>Seminar: Mobile phones use and brain cancer risk</td>
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<tr>
<td>7th</td>
<td>Health effects of ionising radiation and</td>
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<td>radioactive substances</td>
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<td>Seminar: Nuclear accidents and protecting the</td>
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<td>general public</td>
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<td>8th</td>
<td>Health effects of noise and vibration</td>
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<td>Seminar: Midterm test</td>
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</tbody>
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9th week:
Lecture: Food borne diseases, food poisoning
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

15th week:
Lecture: Environmental justice and environmental health policy
Seminar: Summary of seminars

Requirements
Attendance of lectures is highly recommended. Attendance of the seminars and practices is obligatory. The academic adviser refuse to sign the lecture book if a student is absent more than two times from seminars (including practices) in the semester even if he/she has an acceptable excuse. Students should also perform a midterm test on the 8th week of the semester. There is no possibility to repeat this test during the semester. The mark of the midterm test will be included in the calculation of the final average mark of the subject. Students should hold a ten minutes power point presentation which will be graded and the mark will be included in the calculation of the final average mark of the subject.

Requirements for the end semester exam:
The end semester exam involves a written section covering the topics of all lectures, seminars and practices of the subject. The written exam consists of two parts and includes multiple choice test questions related to the topics of lectures, as well as seminars and practices. The final exam is assessed on the basis of the average of four marks (mark of the test related to the topics of lectures, mark of the test related to the topics of seminars and practices, mark of the midterm test, mark of the student presentation) and it is failed if any part of the written exam is graded unsatisfactory. Students should repeat only those section(s) of the exam that has/have been previously unsuccessful. In this case the final exam is graded according to the average of the passing marks obtained on the first and repeated exams.

Type of exam:
end semester exam

Prerequisites: completion of ecology and chemistry subjects
Subject: EPIDEMIOLOGY OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES I.
Year, Semester: 2nd year/2nd semester
Number of teaching hours:
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 inferenceThe 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)

9th week:
Lecture: Logistic regression
Seminar: (2 hours): Logistic regression (Case Study)

10th week:
Lecture: The practical aspects of the implementation of outbreak investigation
Seminar: (3 hours): The surveillance of infectious diseases

11th week:
Lecture: Surveillance of nosocomial of diseases
Seminar: Surveillance of nosocomial diseases

12th week:
Lecture: Epidemiology of respiratory infectious
Seminar: Monkey pox (Case Study)

13th week:
Lecture: Epidemiology of tuberculosis
Seminar: (2 hours): Epidemiology of tuberculosis in developed countries (case study)

14th week:
Lecture: Epidemiology of gastrointestinal diseases Epidemiology of hepatitis
Seminar: (3 hours): Hepatitis outbreak investigation (Case Study)

15th week:
Lecture: Epidemiology of HIV / AIDS
Seminar: Hepatitis outbreak investigation 2 (Case Study)

Requirements
Prerequisite subject: Basic Epidemiology.
Examination: During the semester the students will get practical grade for the homework assessments. At the end of the semester students are required to take a written test which will cover the topics of all lectures and seminars of the first semester. The mark of the final exam will be calculated on the basis of the average of the practice grade and the written exam.
Participation in seminars and practices is obligatory. In the case of more than two absences, signature is refused. During the course a practical mark will be given to the students on the base of classroom tasks, homeworks, and tests.

Subject: PUBLIC HEALTH MEDICINE II.
Year, Semester: 2nd year/2nd semester
Number of teaching hours:
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

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

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

8th week:
Lecture: Infectious diseases
Acute 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
CHAPTER 11

ACADEMIC PROGRAMME FOR THE 3RD YEAR

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:
Lecture: 30

1st week:
Lecture: Development of medical officer service’s regulation

2nd week:
Lecture: Medical officer service in the state administration system

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

4th week:
Lecture: Population health management

5th week:
Lecture: Public health management

6th week:
Lecture: Environmental and settlement health management

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

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

9th week:
Lecture: Control of the food chain

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

11th week:
Lecture: State’s responsibility in the food chain control

12th week:
Lecture: Administration tasks of the food chain supervisory authority

13th week:
Lecture: Occupational health management

14th week:
Lecture: Administration and coordination tasks of the health administration bodies

Requirements

Year, semester: 3rd year/1st semester
Number of teaching hours: 30
Lecture: 30
Department of Immunology

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

1st week:

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:

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

8th week:

9th week:
Lecture: The immune response to intracellular pathogens. Immune response to viral infection. The immune response to extracellular pathogens.

10th week:
Lecture: Inflammation. Chemokine mediated migration of leukocytes.

11th week:
Lecture: Memory. Passive and active immunisation.

12th week:
Lecture: Hypersensitivity reactions.

13th week:
Lecture: Consultation.

Requirements
During the semester one self-control test (SCT) will be organised at the end of the semester on week 15. The SCT contains the material of the lectures. If a student’s score for the SCT is higher than 50%, she/he will be offered a grade. Should student accept this offered grade, she/he will be exempted from the end-term exam. Those students who have not qualified for an offered grade must take the end-term exam during the
exam period. The end-term exam consists of a written and an oral part.
"A" exam: To qualify for the oral part of an "A" exam, students must score higher than 60% on the written (entry) exam. Students who score less than 60% on the written part will fail (thus, the oral exam will not take place).
"B" exam: "B" exams are identical to "A" exams except when the student failed the oral, but not the written, part of th "A" exam. With a score of higher than 60% on the written part of the "A" exam, the student is exempt from the written exam on the "B" exam.
"C" exam: "C" exams are oral exams only, without a written entry test.
Those students who would like to improve the grade of a successful ("A" or "B" exam) or do not accept the offered grade, are also exempted from the entry test.
The list of exam topics is available on the departmental website (www.immunology.unideb.hu).
Lecture materials and other information concerning education can be found on our website at www.immunology.unideb.hu by clicking the link "For Students".

Department of Pharmacology and Pharmacotherapy

Subject: PHARMACOLOGY
Year, Semester: 3rd year/1st semester
Number of teaching hours:
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 is required to fulfil. You have to take ESE during the examination period.

Department of Preventive Medicine, Faculty of Public Health

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

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:
Lecture: Priority setting in health care.

9th week:
Lecture: Performance measurement.

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:

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:
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
Seminar: HFA database

6th week:
Lecture: Literature research
Seminar: HFA database; Literature Research

7th week:
Lecture: Evidence-based health policy
Seminar: Literature search using PubMed

8th week:
Lecture: Study Writing
Seminar: Literature search using PubMed (2)

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

Participation in the seminars is mandatory. If there are more than two absences, the index might not be signed. Prerequisite subject: Epidemiology of communicable and non-communicable diseases I.

Examination:
During the semester the students will get practical grade for the assessment of homework. At the end of the semester students are required to take a written test which will cover the topics of all lectures and seminars of the first semester. The mark of the final exam will be calculated on the basis of the average of the practice grade and the written exam.

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

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: Prevention of occupational diseases. 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, gases)
Seminar: Chemical safety

7th week:
Lecture: Chemical workplace hazards solvents, plastics, pesticides)
Seminar: Measurement, evaluation and prevention of workplace chemical exposures

8th week:
Lecture: Workplace aerosol exposure (dusts, fibers)
Seminar: Measurement, evaluation and prevention of workplace dust and fiber exposures

9th week:
Lecture: Chemical workplace hazards (mutagens, carcinogens, teratogens)
Seminar: Mutagenecity tests (laboratory practical)

10th week:
Lecture: Biological workplace hazards
Seminar: Measurement, evaluation and prevention of workplace biological exposures

11th week:
Lecture: Occupational stress, methods of stress prevention and control
Seminar: Workplace communication (situation practice)
12th week:
Lecture: Ergonomic workplace hazards, work injuries, accidents
Seminar: Occupational safety

13th week:
Lecture: Occupational hygiene surveys, comprehensive evaluation of work environment, occupational risk assessment
Seminar: Aspects of the preparation of Occupational Hygiene Reports

14th week:
Lecture: Occupational health evaluation of industrial processes I.
Seminar: Workplace visit

15th week:
Lecture: Occupational health evaluation of industrial processes II.
Seminar: Student presentations

Requirements

To register for the subject, students need a successful exam in chemistry, basic epidemiology and environmental health. Attendance of seminars and practices is obligatory, not more than 2 absences are required for the signature of lecture book.

Examination:
The subject ends with a written exam assessing knowledge taught on lectures and seminars. To pass, students are required to give correct answers to at least 50% of the 10 multiple choice and 10 short open questions. “B” and upgrading exams are held in oral.

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

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, colorectal 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:
Lecture: 30

1st week:
Lecture: Child health services: organisation and place in the health care system

2nd week:
Lecture: Child health services: tasks and activities

3rd week:
Lecture: Demographic, mortality and morbidity data regarding child health care

4th week:
Lecture: Development of healthy infants, children and adolescents

5th week:
Lecture: Primary prevention in infant age, childhood and adolescence

6th week:
Lecture: Childhood surveillance
### ENGLISH PROGRAM BULLETIN BSC IN PUBLIC HEALTH

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<tr>
<th>Week</th>
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<tbody>
<tr>
<td>7th</td>
<td>Lecture: Continuous care of children with chronic diseases</td>
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<td>8th</td>
<td>Lecture: Complexity of health promotion: health education, health protection and prevention in childhood</td>
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<td>9th</td>
<td>Lecture: Care of infants, children and adolescents with special needs</td>
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<td>10th</td>
<td>Lecture: Infant feeding and nutrition in childhood and adolescence</td>
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<td>11th</td>
<td>Lecture: Physical activity and physical education</td>
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<td>12th</td>
<td>Lecture: Obesity and its consequences in childhood and adolescence</td>
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<td>13th</td>
<td>Lecture: Smoking, alcohol and drug abuse in childhood and adolescence</td>
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<tr>
<td>14th</td>
<td>Lecture: Puberty, its disturbances and adolescents’ sexuality</td>
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<tr>
<td>15th</td>
<td>Lecture: Psychological problems and harmful behaviours in adolescence</td>
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#### Requirements

- Attendance of lectures
- Examination:
  - Oral exam, colloquium

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### 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:
  - Lecture: 30

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<thead>
<tr>
<th>Week</th>
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<tbody>
<tr>
<td>1st</td>
<td>Lecture: Principles of health care law</td>
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<td>2nd</td>
<td>Lecture: System of health services</td>
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<td>3rd</td>
<td>Lecture: Health care system, primary care, outpatient and inpatient care, other health services</td>
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<td>4th</td>
<td>Lecture: Professional requirements of health services</td>
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<td>5th</td>
<td>Lecture: Health care organization and management</td>
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<td>6th</td>
<td>Lecture: Public health</td>
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<td>7th</td>
<td>Lecture: Health promotion, family and women’s care, youth health care, sports health care, environment and settlement health, food and nutrition health</td>
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<tr>
<td>8th</td>
<td>Lecture: Radiation Health, occupational health, infectious disease control</td>
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</table>
### 9th week:
Lecture: Patients' rights and obligations

### 10th week:
Lecture: Rights and duties of health care workers

### 11th week:
Lecture: Medical research on humans

### 12th week:
Lecture: Special procedures related to human reproduction, research involving human embryos and gametes, sterilization

### 13th week:
Lecture: Treatment and care of psychiatric patients

### 14th week:
Lecture: Organ and tissue transplantation, blood provision

### 15th week:
Lecture: Provisions related to the deceased, disaster medical care

**Requirements**

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

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

Subject: BASICS OF QUALITY ASSURANCE  
Year, Semester: 3rd year/2nd semester  
Number of teaching hours:  
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:
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:
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,
<table>
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<th>Week</th>
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<tbody>
<tr>
<td>3rd week</td>
<td>Hypertension and its complications, Thromboembolic diseases, Stroke</td>
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<td>Lecture: Haematological diseases</td>
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<td>Anaemia, myeloproliferative diseases</td>
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<td>4th week</td>
<td>Neoplasia</td>
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<td>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</td>
</tr>
<tr>
<td>5th week</td>
<td>Diseases of the digestive system</td>
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<td></td>
<td>Diseases of the stomach. Diseases of the liver, gall bladder and pancreas</td>
</tr>
<tr>
<td>6th week</td>
<td>Metabolic diseases</td>
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<tr>
<td></td>
<td>Diabetes, Hyperlipidaemia, Gout, Porphyria</td>
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<tr>
<td>7th week</td>
<td>Diseases of the pulmonary system</td>
</tr>
<tr>
<td></td>
<td>Bronchial asthma, Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>8th week</td>
<td>Infectious diseases</td>
</tr>
<tr>
<td></td>
<td>Acute and chronic infectious diseases</td>
</tr>
<tr>
<td>9th week</td>
<td>Diseases of the musculoskeletal system</td>
</tr>
<tr>
<td></td>
<td>Bones, joint and muscular diseases (with emphasis on osteoporosis)</td>
</tr>
<tr>
<td>10th week</td>
<td>Endocrinological diseases</td>
</tr>
<tr>
<td>11th week</td>
<td>Diseases of the kidney</td>
</tr>
<tr>
<td>12th week</td>
<td>Neurological diseases</td>
</tr>
<tr>
<td>13th week</td>
<td>Psychiatry</td>
</tr>
<tr>
<td></td>
<td>Psychosis, schizophrenia, alcoholism, delirium</td>
</tr>
<tr>
<td>14th week</td>
<td>Paediatric diseases</td>
</tr>
<tr>
<td></td>
<td>Dental diseases</td>
</tr>
<tr>
<td>15th week</td>
<td>The fundamentals of surgery</td>
</tr>
<tr>
<td></td>
<td>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
CHAPTER 12

ACADEMIC PROGRAMME FOR THE 4TH YEAR

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: Lecture: 30

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

2nd week:
Lecture: Health care as part of the social system

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

4th week:
Lecture: Institutional social care and management

5th week:
Lecture: European Social Charter and its Rules

6th week:
Lecture: The evolution of social insurance systems

7th week:
Lecture: Forms of social insurance: health insurance; pension insurance

8th week:
Lecture: Accident insurance benefits in Hungary and in Western Europe

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

10th week:
Lecture: Health insurance benefits provided in nature

11th week:
Lecture: System of maternity benefits: maternity leave, childcare benefits, family support system, principles and concepts

12th week:
Lecture: Pension insurance systems in Western Europe

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

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

15th week:
Lecture: Special rules of private pension funds, principles and schemes

Requirements

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

1st week:
Lecture: History of public health and health promotion

2nd week:
Lecture: International infrastructure of health promotion

3rd week:
Lecture: Basics of communication

4th week:
Lecture: Life course perspective of health: childhood as determinant of health

5th week:
Lecture: Integrative model of health

6th week:
Lecture: Self-knowledge, professional self-reflexion

7th week:
Lecture: Changing health behavior 1: theories of behavior change

8th week:
Lecture: Changing health behavior 2: health education by written material

9th week:
Lecture: Changing health behavior 3: oral health education

10th week:
Lecture: Community development

11th week:
Lecture: Changing community behavior 1: Basics of project planning

12th week:
Lecture: Changing community behavior 2: Practical: project planning
13th week:
Lecture: Public health problems of disadvantaged groups

14th week:
Lecture: Evidence-based policies to promote health in populations

15th week:
Lecture: Presenting project plans, feedback session

Requirements

Attendance of the lectures is highly recommended. Attendance of the seminars and practicals is obligatory and is a precondition of signing the lecture book. Maximum two absences are allowed in the semester, but absences from practicals must be made up for.

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.
Individual oral presentation on a preselected topic. Evaluation: Fail/pass on a scale 1-5.
Group presentation of a project plan: Evaluation: Fail/pass on a scale 1-5 for all group members.
The final grade equals the mathematical average of the 3 sub-parts of the exam.

Subject: NUTRITIONAL HEALTH AND FOOD SAFETY
Year, Semester: 4th year/1st semester
Number of teaching hours:
Lecture: 15
Seminar: 30

1st week:
Lecture: Introduction to nutritional health
Seminar: Nutrition risk screening questionnaire

2nd week:
Lecture: Nutrients and energy metabolism
Seminar: Food balance sheets

3rd week:
Lecture: Energy and protein requirements
Seminar: Energy practice 1gr.1.)
Food frequency questionnaires (computer lab, gr.2.)

4th week:
Lecture: Dietary assessment
Seminar: Energy practice
Food frequency questionnaires

5th week:
Lecture: Obesity epidemic
Seminar: Assessment of nutritional status

6th week:
Lecture: Nutritional deficiency disorders
Seminar: Prevention of nutritional deficiency disorders

7th week:
Lecture: Diet and cardiovascular diseases
Seminar: Diet and prevention of chronic noncommunicable diseases. Poster presentations

8th week:
Lecture: Diet and cancer I.
Seminar: Diet macro- micronutrients in health promotion I. Student presentations 1.

9th week:
Lecture: Diet and cancer II.
Seminar: Diet macro- and micronutrients in health promotion II. Student presentations

10th week:
Lecture: Dietary guidelines
Seminar: Diet macro- and micronutrients in health promotion II. Student presentations
11th week:
Lecture: Food safety. HACCP systems.
Seminar: Food processing, preservations. Food additives and regulations

12th week:
Lecture: Epidemiology of foodborne diseases
Seminar: Outbreak of foodborne disease. Case study

13th week:
Lecture: Food allergy and intolerance

14th week:
Lecture: Genetically modified foods
Seminar: Regulation and legislation related to food chain

15th week:
Lecture: Food choice
Seminar: Consultation

Requirements

Attendance of lectures is not obligatory but highly recommended. Attendance of the group seminars and practices is obligatory.
Examination:
Written test, which assessed on five-grade scale.

Subject: THESIS I.
Year, Semester: 4th year/1st semester
Number of teaching hours:
Practical: 15

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:
Lecture: 30

1st week:
Lecture: The development of labour law, the appearance of civil service employment law

2nd week:
Lecture: Labour law principles, introductory provisions of the Code of Labour, the scope of the Act on Legal Status of Civil Servants

3rd week:
Lecture: Subjects and establishment of civil service legal relationship

4th week:
Lecture: Content of civil service legal relationship, fundamental rights and obligations

5th week:
Lecture: Carrier development of civil servants

6th week:
Lecture: Working time and rest time rules for the civil service

7th week:
Lecture: Remuneration of civil servants
8th week:
Lecture: Liability of civil servants, disciplinary liability

9th week:
Lecture: Civil servant’s liability for damages

10th week:
Lecture: Employer's liability for damages

11th week:
Lecture: Termination of the civil service legal relationship 1

12th week:
Lecture: Termination of the civil service legal relationship 2

13th week:
Lecture: Civil service legal disputes

14th week:
Lecture: Special conditions of employment in the civil service

15th week:
Lecture: The institutions of collective labour law

Requirements

Year, semester: 4th year/2nd semester
Number of teaching hours: 30
Lecture: 30

Subject: HEALTH SYSTEM MANAGEMENT
Year, Semester: 4th year/2nd semester
Number of teaching hours:
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:
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: THESIS II.
Year, Semester: 4th year/2nd semester
Number of teaching hours:
Practical: 60
### CHAPTER 13

**REQUIRED ELECTIVE COURSES**

Department of Preventive Medicine, Faculty of Public Health

Subject: APPLIED EPIDEMIOLOGY  
Year, Semester: 3rd year/1st semester  
Number of teaching hours:  
Practical: 30

|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|

**Requirements**

Evaluation of presented project work has to reach at least the satisfactory (2) level.  
Examination:  
Term mark (assessment of work, 5-grade)
### Basics of Research Methodology

**Subject:** BASICS OF RESEARCH METHODOLOGY  
**Year, Semester:** 2nd year/1st semester  
**Number of teaching hours:**  
- Lecture: 15  
- Practical: 15  

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st week</strong></td>
<td>The principles of scientific inquiry. Validity, reliability, precision of research</td>
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<tr>
<td><strong>2nd week</strong></td>
<td>Ethics of science</td>
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<tr>
<td><strong>3rd week</strong></td>
<td>Types of scientific research</td>
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<tr>
<td><strong>4th week</strong></td>
<td>Methods of quantitative research I</td>
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<tr>
<td><strong>5th week</strong></td>
<td>Methods of quantitative research II</td>
</tr>
<tr>
<td><strong>6th week</strong></td>
<td>Methods of qualitative research</td>
</tr>
<tr>
<td><strong>7th week</strong></td>
<td>Orientation in the scientific literature I</td>
</tr>
<tr>
<td><strong>8th week</strong></td>
<td>Orientation in the scientific literature II</td>
</tr>
<tr>
<td><strong>9th week</strong></td>
<td>Data sources</td>
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<tr>
<td><strong>10th week</strong></td>
<td>Measures of occurrence and association</td>
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<tr>
<td><strong>11th week</strong></td>
<td>Designing a scientific inquiry (study design)</td>
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<tr>
<td><strong>12th week</strong></td>
<td>Interpreting and publishing results</td>
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<tr>
<td><strong>13th week</strong></td>
<td>Rules of scientific publication</td>
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<tr>
<td><strong>14th week</strong></td>
<td>Presenting results</td>
</tr>
<tr>
<td><strong>15th week</strong></td>
<td>Requirements for diploma thesis</td>
</tr>
</tbody>
</table>

**Requirements**

- Prerequisite: Basics of Informatics  
- Attendance at lectures is highly recommended, since the topics in examination cover the lectured topics. E-learning course completes the course material.  
- Examination: written

### Clinical Audit

**Subject:** CLINICAL AUDIT  
**Year, Semester:** 2nd year/2nd semester  
**Number of teaching hours:**  
- Lecture: 8  
- Seminar: 6  

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topic</th>
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</thead>
<tbody>
<tr>
<td><strong>1st week</strong></td>
<td>Importance of clinical audit</td>
</tr>
<tr>
<td><strong>2nd week</strong></td>
<td>Steps of clinical audit</td>
</tr>
<tr>
<td><strong>3rd week</strong></td>
<td>Quality indicators</td>
</tr>
<tr>
<td><strong>4th week</strong></td>
<td>Planning of clinical audit projects by teams</td>
</tr>
<tr>
<td><strong>5th week</strong></td>
<td>Presentation and discussion of clinical audit projects by teams 1.</td>
</tr>
</tbody>
</table>
6th week:
Seminar: Presentation and discussion of clinical audit projects by teams 2.

Requirements

Regular attending for the course
Presentation of the clinical audit project
Examination:
Written form

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

1st week:
Lecture: Human impacts on the Biosphere.
Examination of global environmental problems.

2nd week:

3rd week:

4th week:
Lecture: Temperature changes. External forcings (greenhouse gases; aerosols and soot; solar variation). Climate models and effects of recent climate change. Responses to global warming (mitigation, adaptation, UNFCCC).

5th week:

6th week:

7th week:
Lecture: Renewable energy technologies: wind power; hydropower; solar energy; biomass; geothermal energy. Passive, Active and Autonomous houses.

8th week:

9th week:

10th week:
11th week:

12th week:

13th week:

14th week:

15th week:

Requirements

Concerning attendance, the rules written in the Regulations Governing Admission, Education and Examinations of the University are valid.

Examination:
At the end of the semester students are required to take a Final Exam. The exam includes 20 multiple choice test questions and 5 short questions (25 x 2 points). The control tests, including the topics of the lectures, will be given during the semester.

Tests will be assessed as follows:

<table>
<thead>
<tr>
<th>Percentage (%)</th>
<th>Mark</th>
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<tbody>
<tr>
<td>0-50</td>
<td>fail (1)</td>
</tr>
<tr>
<td>51-59</td>
<td>pass (2)</td>
</tr>
<tr>
<td>60-69</td>
<td>satisfactory (3)</td>
</tr>
<tr>
<td>70-79</td>
<td>good (4)</td>
</tr>
<tr>
<td>80-100</td>
<td>excellent (5)</td>
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</tbody>
</table>

The maximum score is 100% and the examination takes 50 minutes.
Compulsory and recommended literature: All the topics of lectures.
Subject: HEALTH IMPACT ASSESSMENT  
Year, Semester: 2nd year/2nd semester  
Number of teaching hours: 
Lecture: 9  
Practical: 6  

1st week: Lecture: Introduction into impact assessments  
2nd week: Lecture: Regulatory, environmental and social impact assessment  
3rd week: Lecture: History of health impact assessment (HIA)  
4th week: Lecture: International organizations, regulatory background of HIA (WHO, EU, World Bank)  
5th week: Lecture: Health impact assessment activities in countries  
6th week: Lecture: History and legal background of HIA in Hungary  
7th week: Lecture: General characteristics and types of HIA (rapid, intermediate, comprehensive)  
8th week: Lecture: Methodology of HIA (process, phases)  
9th week: Practical: Screening  
10th week: Practical: Data sources  
11th week: Practical: Quantitative risk assessment I.  
12th week: Practical: Quantitative risk assessment II.  
13th week: Lecture: Use of health impact assessment results in decision making  
14th week: Seminar: HIA case studies I. (seminar)  
15th week: Seminar: HIA case studies II. (seminar)  

Requirements

Maximum two absences from seminars are allowed.  
Examination:  
The subject ends with a written exam assessing knowledge taught on lectures and seminars. To pass, students are required to give correct answers to at least 50% of the 10 multiple choice and 10 short open questions.

Subject: INTERNET IN MEDICINE  
Year, Semester: 2nd year/1st semester  
Number of teaching hours:
Lecture: 20  

1st week: Lecture: What does web 2.0 mean? Web 2.0 in medicine: Introduction  
2nd week: Lecture: The medical blogosphere From the first
comment to blog carnivals: Step by step

3rd week:
Lecture: Being up-to-date with
RSSMicroblogging in medicine: Twitter and Friendfeed

4th week:
Lecture: Everything you have to know about
WikipediaMedical wikis

5th week:
Lecture: Medical communities: onlineE-Patients on the web

6th week:
Lecture: Second Life: Virtual medicine I.
Second Life: Virtual medicine II.

7th week:
Lecture: Medical practices on the web
Education online: medical resources

8th week:
Lecture: Podcasts and medical videos
A new way of collaboration: Google Docs

9th week:
Lecture: Medical search engines
The Google phenomenon

10th week:
Lecture: The dangers of web 2.0
Future: is there a web 3.0?

Requirements

Two questionnaires must be filled in.

Subject: INTRODUCTION TO THE GENERAL LABORATORY PRACTICE
Year, Semester: 3rd year/1st semester
Number of teaching hours:
Practical: 15

1st week:
Lecture: Safety precautions in the laboratory

2nd week:
Seminar: Glassware used in the laboratory

3rd week:
Seminar: Cleaning glassware

4th week:
Seminar: Equipments used in the cell culture

5th week:
Seminar: Volumetric flasks used in the laboratory

6th week:
Seminar: Pipettes and pipettors used in the laboratory

7th week:
Seminar: Types of balances used in the laboratory

8th week:
Practical: Calibration of pipettors

9th week:
Seminar: Measurement of pH

10th week:
Practical: Calibration of pH meters

11th week:
Seminar: Buffers used in the laboratory

12th week:
Seminar: Types of solutions used in the laboratory

13th week:
Seminar: Types of centrifuges used in the laboratory

14th week:
Seminar: Spectrophotometric measurements

15th week:
Practical: Spectrophotometric determination of protein concentration
**Requirements**

Attendance of the seminars and laboratory practices is obligatory. The module coordinator can refuse to sign the lecture book if a student is absent more than twice from seminars and practices in the semester even if he/she has an acceptable excuse.

Examination:

At the end of the course students are required to take a written exam consisting of multiple choice test questions. The test covers the topics of the seminars and practices. If the test is graded unsatisfactory students should repeat the exam.

**Subject: MATHEMATICAL BASICS OF BIOSTATISTICS**

Year, Semester: 1st year/1st semester

Number of teaching hours:
- Lecture: 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

Participation in seminars and practices is obligatory. In the case of more than two absences signature is refused. During the course a practical mark will be given to the students on the base of classroom tasks, homeworks, and tests.

Subject: MODERN MORPHOLOGICAL METHODS AND POSSIBLE APPLICATIONS

Year, Semester: 2nd year/1st semester

Number of teaching hours:

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Practical</th>
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<td>22</td>
<td>8</td>
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</tbody>
</table>

1st week:
Lecture: Introduction into molecular morphological methods The history of microscopy. The structure of microscopes.

2nd week:

3rd week:

4th week:
Lecture: Application of FISH. Detection of translocation of chromosome segments using whole chromosome painting probes. Detection of gene amplification in interphase tumor cells with locus specific DNA probes different fluorochromes for chromosome analysis. Clinical application of FISH.

5th week:
Lecture: FISH in the research laboratory. Practice, protocol demonstration for small groups.

6th week:

7th week:
Lecture: Epigenetic alterations and diseases.

8th week:
Lecture: The underlying principles of conventional immunohistochemical methods. Immunohistochemical reactions on paraffin embedded and on frozen tissue sections, multiple labeling (fluorescent and enzymatic). Simultaneous detection of genetic alteration and protein expression (combination of FISH and immunochistochemical methods, demonstration).

9th week:

10th week:
Lecture: Laser microdissection. Practice for small groups.

11th week:
Lecture: Polymerase chain reaction. Basic principle and use in research and diagnosis.

12th week:
Lecture: PCR instrument. Practice for small groups.

13th week:
Lecture: Basic principle of microgel electrophoretic technique for the detection of DNA strand breaks and repair. Fluorescence microscopic demonstration of the digital image analysis software for the evaluation of comet
Molecular biology and biomedical research have recently experienced a revolutionary change with the development of new methods. The aim of the course is to introduce students into these new technical approaches that are used at the field of environmental health and molecular medicine and research. During the lectures, we will discuss the basics of the methods in details and highlight the possible applications at different fields. The course will help the students to join the scientific work at the University and understand the principal of the modern molecular techniques (e.g. microscopy, polymerase chain reaction, comet assay and fluorescence in situ hybridization).

Prerequisite:
Genetics and cell biology

Requirements:
Attendance on lectures and seminars are recommended since the topics in examination will cover the topic of lectures. The signature of the lecture book may be refused for the semester in the cases of absences from more than two practices or lectures. Student who do not attend on lectures and seminars are not allowed to write the pre-exam test. Depending on the result of the test the final mark will be offered.

Examination:

At the end of the semester students will be examined (end-semester-exam: ESE). The form of examination is a written form. Evaluation of the written test is assessed on a five grade scale.
CHAPTER 14

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.

Introduction to Biology I.:

Introduction to Biophysics II.:
Serway/Vuille: College Physics.
University of Debrecen.

Introduction to Biology II.:

English for BMC students:
Soars, John and Liz: Headway - Pre-Intermediate Students' Book and Workbook.

SBMC

Introduction to Biophysics:
Serway/Vuille: College Physics.

Introduction to Medical Chemistry:
F., Erdődi, Cs., Csortos: Organic Chemistry for Premedical Students.
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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.
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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.
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Bioethics:

First aid:

Introduction to Nursing and Clinical Medicine:

Sociology:
http://www.sociologyofhealth.net.

Ecology:

Introduction to public health:

Cell Biology:
**Basic anatomy:**
Sadler, T. W.: Langman's Medical Embriology.
Sobotta: Atlas of Human Anatomy I-II.
A. Birinyi (Ed): Anatomy.
L.P. Gartner: Concise Histology.

**Biostatistics:**

**Health (& Library) informatics I.:**
Parker, J.C., Thorson, E.: Health Communication in the New Media Landscape.

**Genetics and molecular biology:**

**Basics of pedagogy:**
Glanz, Rimer, Lewis eds.: Health behavior and health education.

**Health sociology:**
SAGE, 2012. ISBN: (Chapters 1., 2.).

**Medical latin:**
Répás László, 2012.

**2nd year**

**Introduction to law I.:**

**Physiology:**
Koeppen, B. M., Stanton, B. A.: Berne & Levy Physiology.
Hall, J. E.: Guyton and Hall Textbook of Medical Physiology.
Constanzo, L.S.: Physiology with Student Consult Online Access.

**Public health medicine I.:**
McPhee, Stephen J.; Papadakis, Maxine A.; Tierney, Lawrence M.: Current Medical Diagnosis and Treatment.
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**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.:
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Professional Hungarian I.:
Győrffy Erzsébet, Ph.D.: Hogy s mint? I.
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Trochim, WMK: Research methods knowledge base.
URL: http://www.socialresearchmethods.net/kb/content.php
URL: http://www.wpro.who.int/publications/docs/Health_researchEdited.pdf
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Modern morphological methods and possible applications:

Environmental protection:
Carson R.: Silent Spring.
Lynas M.: Six Degrees: Our Future on a Hotter Planet.
Whitacre D.M. (ed.): Reviews of Environmental Contamination and Toxicology. Vol. 223..

Internet in medicine:

Introduction to law II.:

Environmental health:
Power points slides of the lectures and seminars available at: www.nepegeszseg.hu/pdf.


public health policies.
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Sabatier, P.A., (ed.): Theories of the policy process.
Thomson, S., Foubister, T., Mossialos, E.:
Financing health care in the European Union:
Challenges and policy responses, European Observatory on Health Systems and Policies.
Seedhouse, D.: Health promotion. Philosophy,
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Routledge, 2002.

Immunology:
Gogolák P., Koncz G.: Short textbook of Basic Immunology.

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.:
Morrison: Screening in chronic disease.
Oxford University Press, .
Brownson, Remington, Davis: Chronic disease epidemiology and control.
Mayor: Essential Evidenced-Based Medicine.
Schottenfeld, Fraumeni: Cancer Epidemiology and Prevention.
Weiss: Clinical Epidemiology.
Marmot, Elliott: Coronary Heart Disease Epidemiology - From aetiology to public health.
Narayan, Williams, Gregg, Cowie: Diabetes Public Health - From Data to Policy.

Occupational health:
Raffe PAB, Adams PH, Baxter PJ, Lee WR:
Hunter’s Diseases of Occupation.
Stellman JM (ed.): Encyclopaedia of Occupational Health and Safety.

Health care law I.:
Jonathan Montgomery: Health Care Law.

Introduction to the general laboratory practice:
Coyne G. S.: The laboratory companion. A practical guide to materials, equipments and technique.

Applied epidemiology:
R. Beaglehole, R. Bonita, T. Kjellström: Basic epidemiology.

Health care law II.:
Jonathan Montgomery: Health Care Law.

Basics of quality assurance:
Radcliffe Medical Press, .
Baker, R.H., Hearndshaw, H., Robertson, N.: Implementing Change with Clinical Audit.

Public health medicine IV.:
McPhee, Stephen J.; Papadakis, Maxine A.;
Tierney, Lawrence M.: Current Medical Diagnosis and Treatment.
2008.

Field and laboratory practice I.:
Maxey-Rosenau-Last : Public Health and
Preventive Medicine.

4th year

Health care law III.:  
Jonathan Montgomery: Health Care Law. 

Health promotion:  
Wiley and Sons, 1997.

Nutritional health and food safety:  
From farm to fork. Safe food for Europe’s consumers (http://ec.europa.eu/food/resources/publications_en.htm).  

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 Kongsvedt: Managed Care: What It Is and How It Works .  
Jonas and Kovner's: Health Care Delivery in the United States.  

Health care law IV.:  
Jonathan Montgomery: Health Care Law.  

Field and laboratory practice III.:  
CHAPTER 15

TITLES OF THESES AND TDK

Department of Preventive Medicine

Thesis:
1. Investigation of workplace hazards
2. Occupational diseases in Hungary
3. Genotoxic exposures in the work- and ambient environment
4. Health impact assessment of policies, programmes and projects
Tutor: Balázs Ádám M.D., M.Sc., Ph.D.

Thesis:
5. Evaluation of chronic care for hypertension in general medical practice
6. Evaluation of chronic care for diabetes mellitus in general medical practice
7. Evaluation of chronic care for adult overweighted in general medical practice
8. Evaluation of chronic care for adult smokers in general medical practice
Tutor: János Sándor M.D., Ph.D.

Thesis and TDK:
Tutor: Szilvia Fiatal M.D., Ph.D.

Thesis and TDK:
10. Health-related behaviours among adolescents Mental health of students
Tutor: Éva Bíró M.D., Ph.D.

Thesis
11. Pesticide use in developed and developing countries
Tutor: László Pál MSc., Ph.D.

Thesis:
12. Mortality due to environmental risk factors in European countries
Tutor: Sándor Szűcs MSc., Ph.D.

Thesis and TDK:
13. Assessment of air quality status in developing and developed countries
Tutor: Ervin Árnyas MSc., Ph.D.

Thesis:
14. Genetic epidemiology of obesity (literature review)
TDK:
15. The role of the FTO gene in the development of metabolic syndrome
Tutor: Károly Nagy MSc., Ph.D.

Department of Behavioural Sciences

TDK:
16. Medicalization and its social-cultural context
17. Changing attitudes towards human phenomena in Western medicine
18. Prolongation of life as a modern Western project
19. Contemporary problems of Psy-complex
20. Health and disease in cultural context
Tutor: Attila Bánfalvi MSc., Ph.D.

Thesis:
21. End of Life Decisions
Tutor: Sándor Kőmüves MSc., Ph.D.

Department of Family and Occupational Health

Thesis:
22. Advantages of computer-aided diagnosis in primary care
23. Work related stress and burnout amongst healthcare workers
24. Health impairment related to occupational hazards
Tutor: László Róbert Kolozsvári M.D., Ph.D.

Thesis:
25. Psychosocial etiological factors in the workplace
26. Stress, as a risk factor in the working environment
27. Effects of burnout on work efficiency
Tutor: Timea Ungvári MSc.

Thesis:
28. Cardiovascular risk factors and risk assessment
29. Continuing care of patients with high cardiovascular risk in primary care
Tutor: Zoltán Jancsó M.D., Ph.D.
Thesis:
30. The family physician as gatekeeper
31. Physical, mental and social aspects of aging
Tutor: Anna Nánási M.D.