REQUIREMENTS

Semmelweis University, Faculty of Medicine
Name(s) of the Institute(s) teaching the subject:
Department of Public Health

Name of the subject: Public Health

Credits: 7

Total number of hours: **lectures: 3** **practices: 4** **seminars:**

Type of the course (mandatory/elective): mandatory

Academic year: 2020/201

Code of the course[1]:

Course director (tutor): Dr. Zoltán Ungvári

Contact details: 1089 Budapest, Nagyvárad tér 4. 13. em., 210-2954

Position: director of department

Date of habilitation and reference number:

Aim of the subject and its place in the curriculum:
Public health deals with human health issues at a population level. As an applied science, its basic goal is to preserve and improve health and to prevent diseases. To achieve these goals public health covers several areas of health. Epidemiology (of communicable diseases) deal with infectious diseases, with a special focus on infection control. Traditional public health describes the role of environmental factors in the development of diseases. Occupational medicine aims to maintain the health of employees through the prevention of occupational diseases. Physicians of the 21st century should be able to perform individual health promotion techniques and also should be aware of the concept of community health promotion. Epidemiology as a methodology in public health is essential for all these activities.

Location of the course (lecture hall, practice room, etc.):
Semmelweis University, NET building
1089 Budapest, Nagyvárad tér 4**.**

Competencies gained upon the successful completion of the subject:
The main competences students acquire are abilities for assessment of various epidemiological studies and for comprehensive reading of scientific evidence-based literature as well. Other competences: ability to design and implement research by selecting the most appropriate epidemiological methods; ability to conduct individual health promotion based on lifestyle factors and to have basic info of community health promotion. Skills for application the practical knowledge related to epidemiology and infection control.

Prerequisite(s) for admission to the subject:
Cardiology-Cardiac Surgery, Angiology-Vascular Surgery, Oncology-Plastic Surgery, Medical Statistics, Informatics and Telemedicine

Minimum and maximum number of students registering for the course: Registration via Neptun system, 1 / 8th of the course
Student selection method in case of oversubscription:

How to register for the course: via Neptun system

Detailed thematic of the course[2]:

1st week	1.	2.	3.		4.
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Morning	Health promotion programs – basics, situation mapping, identyfication of needs, action plan	Handicapped population / public health programs for the vulnerable groups. FIELD TRIP	Epidemiology: basic statistics, morbidity measurements. Types of epidemiologic studies. Clinical decisionmaking.	BREAK	Interventional studies, screening. Epidemiology test.
Afternoon	Mental health / Prevention. Illegal drugs use and their prevention	Aging population / gerohygiene. The elderly as a vulnerable group. Social situation of the elderly. Role play with ability tools	Alcohol use, public health significance. Brief intervention for alcohol use. Role play studying.	BREAK	Evaluation of nutritional status. Lifestlye advice for nutrition, brief intervention. Food safety.
2nd week	**5.**	**6.**	**7.**		**8.**
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Morning	Epidemiology of communicable diseases. Epidemiologic measures in outbreak investigation	Environmental medicine. Air / soil / water hygiene. Climate change. Chemical safety.	Infection control / epidemiology of communicable diseases	BREAK	Occupational medicine, work risk assessment.
Afternoon	Critical reading, evaluation of scientific articles (STROBE / PRISMA / CONSORT statement)	Smoking. Brief intervenfion for smoking cessation. Role play studying.	Infection control / epidemiology of communicable diseases	BREAK	Physical activity, possible therapies. Brief intervention for sports, role play studying.
3rd week	**9.**				
	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Structure of healthcare, healthcare financing. Quality assurance in healthcare.	STUDY PERIOD	EXAM	BREAK	EXAM
Afternoon	ORAL EXAM				

Lecturers / practical instructors:
Dr. Zoltán Ungvári, professor
Dr. Károly Cseh, professor
Dr. Anna Tompa, professor
Dr. Melinda Pénzes, senior lecturer
Dr. András Terebessy, senior lecturer
Dr. Ferenc Horváth, assistant lecturer
Dr. Vince Pongor, assistant lecturer
Dr. Péter Csépe, senior research fellow
Dr. Dorottya Árva, resident
Dr. Péter Balázs, college professor

Potential overlap(s) with other subjects:
Medical microbiology (epidemiology of communicable diseases)
Medicinal, epidemiological, and social aspects of drug abuse (alcohol, drug use)
Healthcare Management (quality management in healthcare, basics of healthcare)
Infectology (epidemiology of communicable diseases)
Climate Change and Health in Sociological Perspectives (environmental medicine)

Special training activities required[3]:
Following the e-learning material of the department (equals to 2 credits). Other mandatory elements: brief intervention reports, risk assessment (scoring).

Policy regarding the attendance and making up absences:
Participation on the contact hours is mandatory. Catch up classes are possible based on discussion with the tutor of the course.

Means of assessing the students' progress during the semester[4]:
Requirement for acknowledging the semester (signature): participation on 75% of contact hours and finishing the e-learning material
Type of the examination: Combined exam, which consists of oral and written (test) performance evaluation. The exam is successful if both performance assessments reach at least a satisfactory level. The final grade is the average of the two exams. The oral exam takes place in the last two hours of the block practice. You must register for the test in the Neptun system.

Exam requirements[5]:
ORAL EXAM TOPICS

1. Designing a health promotion program based on given criteria
2. Evaluation of a completed health promotion program
3. Presenting questionnaires suitable for screening depression
4. Critical reading and analysis of a given scientific article
5. Evaluation of an epidemic curve
6. Analysis of an epidemic with epidemiological methods
7. Calculation of incidence, prevalence, mortality, lethality by example
8. Calculation of risk indicators (relative risk, additional risk, additional risk ratio, population additional risk ratio, odds ratio)
9. Evaluation of a randomized controlled trial
10. Screening test evaluation (sensitivity, specificity, predictive values, ROC)
11. Minimal smoking intervention (role playing)
12. Alcohol with SBI (role playing)
13. Minimal intervention for physical exercise
14. Disease-specific physical activity recommendations
15. Nutrition advise
16. Preparation of an individual health plan (CV score, recommended screenings, vaccinations, lifestyle advice)
17. Job aptitude tests
18. Preparation of risk assessment
19. Solving a problem with quality assurance methods
20. Preconceptional health protection, pregnancy care

WRITTEN TEST TOPICS--
Epidemiology of communicable diseases

I / 1. General epidemiology of communicable diseases (basic principle of communicable diseases, primary and secondary factors of epidemic processes).
I / 2. General epidemiology of nosocomial infections, prevention.
I / 3. Sterilization, disinfection
I / 4. Active and passive immunization.
I / 5. General characteristics of gastrointestinal infections. Typhoid fever.
I / 6. Shigellosis, Cholera, E.coli gastro-enteritis.
I / 7. Viral hepatitis (A,B,C,D,E), prevention of the diseases
I / 8. Polio. Rotaviral enteritis.
I / 9. Protozoa and worm infections (amoebiasis, giardiasis, enterobiasis, trichinellosis)
I / 10. Infections of respiratory tract - general characteristics. Diphtheria. Scarlet fever.
I / 11. Legionella, streptococcus pneumonia. Hemophilus influenzae meningitis, meningitis epidemica
I / 12. Influenza, Chickenpox, Mononucleosis.
I / 13. Measles, Mumps, Rubella.
I / 14. General characteristics of hematogenic and lymphogenic infections. Malaria, typhus exanthemicus
I / 15. Lyme disease, tick borne encephalitis
I / 16. General characteristics of antropozoonoses. Leptospirosis, brucellosis
I / 17. Rabies, prion-infections, Q-fever
I / 18. Tetanus, gas gangrene
I / 19. Toxoplasmosis.
I / 20. General characteristics of sexually transmitted diseases, prevention. Syphilis, Gonorrhea.
I / 22. New and emerging infectious diseases, antibiotic resistance.
I / 23. HIV/AIDS
Environmental medicine, toxicology, nutrition

II / 1. Human ecology, the human activity and the ecosystem, environmental protection.
II / 2. Water hygiene: water resources, drinking water, recreational waters, surface waters.
II / 3. Health effects and evaluation of common air pollutants. Smog. Indoor air pollution.
II / 4. Soil hygiene, solid waste materials, sewage, hazardous waste materials, Hygiene of human settlements and of housing.
II / 5. Physical work and heat stress, work under low temperatures, compressed air work (caisson disease)
II / 6. Health effect of vibration and noise.
II / 7. Health effect of ionizing and non-ionizing radiation.
II / 8. Categories of occupational health hazards. Occupational respiratory diseases. Silicosis, asbestosis, coal workers pneumoconiosis.
II / 9. Basics of occupational toxicology. Classification of toxins, the route of toxins in the human body, types of intoxication, interactions.
II / 10. Toxicology of metals (lead, mercury, cadmium, arsenic)
II / 11. Toxicology of gases (carbon monoxide, carbon dioxide, chlorine gas, ammonia, ethilene oxide)
II / 12. Toxicology of solvents and plastic
II / 13. Toxicology of pesticides and hormone disrupters
II / 14. Prevention of occupational diseases, occupational health care.
II / 15. Nutritional definitions. Evaluation of the nutritional status
II / 16. Nutritional requirements (energy, protein, carbohydrate, fat), nutritional norms, nutritional disorders.
II / 17. Forms of malnutrition. PEM. Vitamin A and D deficiency.
II / 18. Iodine and iron deficiency.
II / 19. Natural and artificial chemicals in the food, food safety.
II / 20. Microbiological food poisonings (Staphylococcal food poisoning, Botulism).
II / 21. Food-borne infections (Salmonellosis, Yersiniosis, Campylobacterisos).
II / 22. Healthy diet, prevention and consequence of overweight
II / 23. Healthcare in disaster situations, bioterrorism

Epidemiology, non-communicable diseases, health care system

III / 1. Definition and uses of epidemiology. Ratios and rates frequently used in epidemiology and in demography (crude mortality, death rate, incidence, prevalence, case fatality rate, infant mortality rate).
III / 2. Crude and standardised mortality (direct and indirect standardization). Mortality and life expectancy in developing and developed countries.
III / 3. Mortality, morbidity and life expectancy in the developed and the developing countries
III / 4. Definition and calculation of relative and attributable risk. Cohort studies.
III / 5. Case control studies, definition of odds and odds ratio
III / 6. Experimental epidemiology
III / 7. Primary prevention and health promotion. Secondary prevention, screening.
III / 8. Epidemiology and prevention of smoking.
III / 9. Epidemiology and prevention of alcoholism.
III / 10. The public health importance of illegal drugs, drug abuse
III / 11. Epidemiology and prevention of hypertension and stroke.
III / 12. Epidemiology and prevention of cardiovascular diseases.
III / 13. Epidemiology and prevention of cancer.
III / 14. Epidemiology and prevention of musculoskeletal diseases. Osteoporosis
III / 15. Maternal, infant health promotion, prevention of congenital disorders.
III / 16. Health promotion of child and young people, school health care.
III / 17. Mental disorders, suicide. Health matters of the elderly people
III / 18. The structure of health care system. Basic concepts of health care financing.

Type and method of grading[6]: based on the results of the written test and the oral exam

How to register for the exam: via Neptun system
Opportunities to retake the exam: by university regulations
Literature, i.e. printed, electronic and online notes, textbooks, tutorials (URL for online material): Public health e-learning material (https://itc.semmelweis.hu/moodle/) Edit Paulik :Public health and preventive medicine. Budapest: Medicina Publishing House, 2013. Material of lectures and seminars
Signature of the tutor:
Signature(s) of the head(s) of the Institute(s):
Date:

Credit Transfer Committee's opinion:
Comment of the Dean's Office:
Signature of the Dean:

[1] Dékáni Hivatal tölti ki, jóváhagyást követően.
[2] Az elméleti és gyakorlati oktatást órákra (hetekre) lebontva, sorszámozva külön-külön kell megadni, az előadók és a gyakorlati oktatók nevének feltüntetésével. Mellékletben nem csatolható!
[3] Pl. terepgyakorlat, kórlapelemzés, felmérés készítése stb.
[4] Pl. házi feladat, beszámoló, zárthelyi stb. témaköre és időpontja, pótlásuk és javításuk lehetősége.
[5] Elméleti vizsga esetén kérjük a tételsor megadását, gyakorlati vizsga esetén a vizsgáztatás témakörét és módját.
[6] Az elméleti és gyakorlati vizsga beszámításának módja. Az évközi számonkérések eredményeink beszámítási módja.