SYLLABUS ANNEX

The academic year when the cycle of instruction 2019-2025 [INTERNATIONAL PROGRAM]

Module/course name:	Epidemiology	**Module code**	**LK.3.G.003**
Faculty:	Faculty of Medicine with English Language Division		
Major:	Medical		
Specialty:			
Level of study:	I (Bachelor studies) ☐ II (Master studies) ☐ integrated Master studies **X** III (Doctoral studies) ☐		
Mode of study :	full-time **X** part-time (extramural) **X**		
Year of study:	I ☐ II **X** III ☐ IV ☐ V ☐ VI ☐	Semester :	1☐ 2☐ 3**X** 4☐ 5☐ 6☐ 7☐ 8☐ 9☐ 10☐ 11☐ 12☐
Module/course type:	obligatory **X** elective ☐		
Language of instruction:	Polish ☐ foreign **X**		

Form of education	**Hours**
Lecture	
Seminar	**5 e-learning**
Laboratory class	**20 e-learning**
E-learning	
Practical class	
Internship	

Student's work input (participation in class, preparation, evaluation, etc.)	**Student's hourly workload**
1. In class	**25**
2. Student's own work	**5**
Summary of the student's workload	**30**
ECTS points for module/course	**1**

Educational objectives:

- To guide students to understand the role of epidemiology in medicine and in public health.
- Familiarizing students with methods that are used in epidemiological investigations, interpreting basic rates, that are applied in public health and analysing demographic and epidemiological aspect of the population.
- Familiarizing students with epidemiological features of some the infectious, as well as non-infectious, civilization-related diseases.

The student should:

- be familiar with the basic concepts and definitions used in epidemiology and demography, current health problems and demographic situation of indicated societies, types of epidemiological studies and the principles of prevention, particularly methods of protection against exposition to harmful factors
- understand the reasons for demographic and health transformations, principles and causes of infectious diseases, as well as reasons behind occurrence of epidemics;
- be able to collect and interpret demographic data and epidemiological tests results, and to understand the impact of the environmental factors on health,
- be able to employ epidemiological data to assess the health situation of the society,
- grow accustomed to the methods of infectious disease prevention and to apply specific, as well as nonspecific, prevention methods.

The matrix of learning outcomes for module/ subject with reference to verification methods of the intended educational outcomes and forms of instruction:

Learning outcome code	A student who has obtained a credit for the module/course has the knowledge of /skill to:	Methods of verifying the achievement of the intended learning outcomes:	Form of instruction * provide the symbol
W01 (B.W32.)	understand basic methods of statistical analysis used in populational and diagnostic studies;	Test /*MCQ*/on the Moodle Platform	Seminar/ Lab class (e-learning)
W02 (C.W13.)	epidemiology of viral, bacterial, fungal and parasitic infections with respect to their geographical range of occurrence;	Test /*MCQ*/ on the Moodle Platform	Seminar / Lab class (e-learning)
W03 (C.W14.)	the effect of the environmental factors on human body and human population and their entrance paths to the human body ; can describe the consequences of human body exposure to various chemical and biological factors and the principles of prophylactics;	Test /*MCQ*/ on the Moodle Platform	Seminar / Lab class (e-leraning)
W04 (E.W1.)	genetic, environmental and epidemiological background of the most prevalent diseases in indicated population	Test /*MCQ*/ on the Moodle Platform	Seminar / Lab class (e-learning)
W05 (E.W23.)	environmental and epidemiological background of the most prevalent neoplasms	Test /*MCQ*/ on the Moodle Platform	Seminar / Lab class (e-learning)

W06 (G.W1.)	individual and population health assessment methods, various systems of diseases' and medical procedures' classification	Test /*MCQ*/ on the Moodle Platform	Lab class
W07 (G.W2.)	understand study methods used in analysis of risk factors and advantages and disadvantages of various types of epidemiological study designs and can interpret and draw conclusions based on the data indicative of the presence of cause-effect relationship;	Test /*MCQ*/ on the Moodle Platform	Lab class
W08 (G.W3.)	epidemiology of infectious and chronic diseases, methods of prevention at various clinical stages of the disease, and the role of epidemiological surveillance	Test /*MCQ*/ on the Moodle Platform	Seminar / Lab class
W09 (G.W9.)	regulations concerning medical experiment and rules of conducting medical studies;	Test /*MCQ/ on the Moodle Platform*	Lab class
W10 (G.W13.)	interpret data concerning disease or disability incidence, assess the epidemiological status of the most prevalent diseases that occur nationwide;	Test/practical task on the Moodle Platform	Seminar / Lab class
U01 (B.U13.)	explain differences between prospective and retrospective, randomized and clinical controlled trials, case description and experimental studies, and rank them in respect to credibility and quality of scientific evidence provided;	Test/practical task on the Moodle Platform	Lab class
U02 (B.U14.)	plan and execute simple research study, interpret the results and draw conclusions	Test/practical task on the Moodle Platform	Lab class
U03 (G.U1.)	describe the demographic structure of the population and assess the population health problems;	Test/practical task on the Moodle Platform	Seminar / Lab class
U04 (G.U2.)	obtain information concerning incidence of infectious and chronic disease's risk factors and can design prophylactic measures with regard to various stages of prevention;	Test/practical task on the Moodle Platform	Lab class

K.01	display ingenuity in analyzing epidemiological data	an observation by a supervisor on the Moodle Platform	Lab class
K.02	devise the appropriate response to the epidemiological threat	an observation by a supervisor on the Moodle Platform	Lab class

EXAMPLES OF METHODS VERIFYING THE ACHIEVEMENT OF THE INTENDED LEARNING OUTCOMES:

In terms of knowledge: Oral exam (*non-standardized, standardized, traditional, problem-based*).
Written exam – the student produces/identifies answers (*essay, report; structured short-answer questions /SSQ/; multiple choice questions /MCQ/; multiple response questions /MRQ/; matching test; true/false test; open cloze test*).
In terms of skills: practical exam; Objective Structured Clinical Examination /OSCE/; Mini-CEX (mini – clinical examination); completion of a given assignment; project, presentation.
In terms of social competences:
A reflective essay; an extended observation by a supervisor/tutor; 360-degree assessment (feedback from teachers, peers, patients, other co-workers); self-assessment (portfolio included).

Course content: (use keywords referring to the content of each class following the intended learning outcomes):
SEMINARS (1st and 2nd last 1.30 hours, lecture 3rd lasts 45 min.) implemented as e-learning on the Moodle platform

1. Transformation of epidemiology. Epidemiology of the selected civilization diseases (diseases of circulatory system, cancer, metabolic diseases – diabetes, obesity).
2. Current risks to population health: AIDS, SARS, MERS, Avian Influenza, influenza A(H1N1), haemorrhagic fevers, Lyme disease, Legionnaires' disease.
3. Epidemiology of tuberculosis, hepatitis (A, B, C).

LAB CLASSES (Each of lab classes 1st-10th lasts 1.30 hours) implemented as e-learning on the Moodle platform

1. An introduction to epidemiology. Basic terms and definitions. Definitions and causes of disability. Health promotion. Health prevention, phases of health prevention. The epidemiological triad. Epidemiologic data sources of information about the health of population. Death certificate. International Statistical Classification of Diseases and Health Related problems – Tenth Revision. Exercises.
2. Methods of comparing the health status of populations. Negative and positive epidemiological health measurements. The principles of medical demography. The characteristic population features essential in epidemiological analyses (age, sex, education, dwelling place, death rate, birth rate). Exercises.
3. New measurements of human life's quality (HDI, YLL, DALY, YLD, QALY et al.). Exercises.
4. The role of surveys in epidemiology. Epidemiological variables and methods of their selection in epidemiological analyses. The methods of questionnaires constructing in epidemiology. The principles of planning in epidemiological researches. Exercises.
5. The method of the choice of population to researches in epidemiology. The types of researches in epidemiology. The nonexperimental studies. Cross-sectional studies. Ecologic studies. Cohort studies. Case-control studies. Exercises.
6. Experimental studies. Randomized control trials. Screening tests, usefulness in medicine. Exercises.
7. Infectious diseases - basic terms. The routes of spreading of infectious diseases. The methods of preventing infectious diseases. Overview of outbreak investigations. Vaccination.
8. Epidemiology of food poisoning. Exercises.
9. Actual problems of health, demographic and social status of the world population.
10. Revision of knowledge of the Epidemiology lectures and classes.

Obligatory literature for seminars:

1. „Basic Epidemiology" 2nd edition, R. Bonita, R. Beaglehole, T. Kjellström. World Health Organization 2006
2. "Modern epidemiology, 3rd Edition", Kenneth J. Rothman, Timothy L. Lash, Sander Greenland. Lippincott-Raven Publishers 2012

Complementary literature for seminars:

1. Dictionary of epidemiology. Sixth Edition. Oxford University Press 2014

Obligatory literature for lab classes:

1. „Basic Epidemiology" 2nd edition, R. Bonita, R. Beaglehole, T. Kjellström. World Health Organization 2006
2. "Modern epidemiology, 3rd Edition", Kenneth J. Rothman, Timothy L. Lash, Sander Greenland. Lippincott-Raven Publishers 2012

Complementary literature for lab classes:

1. Dictionary of epidemiology. Sixth Edition. Oxford University Press 2014

2. "Epidemiology, Biostatistics and Preventive Medicine, 3rd Edition", James F. Jekel, David L. Katz, Joann G. Elmore, Dorothea M.G. Wild. W.B. Saunders Company, Philadelphia, Pennsylvania 2007

3. Fletcher R.H. Clinical epidemiology. The essentials fifth edition. Williams and Wilkins 2014

Requirements for didactic aids (multimedia projector, movie camera, etc.)

for seminars: multimedia projector, laptop

for lab classes: multimedia projector, a computer for each student with internet access, practical tasks, calculators

Conditions for obtaining a credit for the subject:

1. Students have to attend all seminars and lab classes.
2. Students are required to participate in lab classes according to the schedule (no group switching).
3. One class can be missed without any consequences (one unjustified absence). More than 1 missed lab class must be explained with doctor's note or other explanation note certified by the Dean's Office;
4. The final Epidemiology exam will take the form of a written multiple-choice test (50 questions with multiple-choice answers) and is scheduled to be held at the end of semester. Questions for the test are based on the course curriculum (topics discussed during lab classes and seminars). The test will be held on the Moodle Platform.
5. A positive grade: at least 60% of correct answers from final exam is required to receive a passing grade.
   Grading scale
   <30 points: failed exam grade: 2.0
   30-34 points (60-67%) - grade: 3.0;
   34-37 points (68-74%) - grade: 3.5;
   38-41 points (75-82%) - grade: 4.0;
   42-45 points (83-90%) - grade: 4.5;
   46-50 points (91-100%)-grade: 5
6. Test must be taken on scheduled dates and times.
7. Any kind of cheating is prohibited.
8. The use of electronic devices with electronic data bases is not permitted during written test unless specified by course lecturer.
9. The number of allowed retakes is limited to two.

The name and address of the department/clinic where the course is taught (module/course); contact details (phone number/ email address):

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Signature of the head of the department/clinic

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Dean's signature

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Date of submission: .....