Załącznik nr 5 do zarządzenia nr 189/2025

COURSE SPECIFICATION

Course code: 0912.4.LEK.C.Ep

Course title in Polish: Epidemiologia
Course title in English: Epidemiology

1. Placement of the course within the study programme

1.1. Field of study	Medicine
1.2. Mode of study	Full-time
1.3. Level of study	Uniform Master's study
1.4. Profile of study	General academic
1.5. Course specification author	dr n. med. Michał Zabojszcz
1.6. Contact	michal.zabojszcz@ujk.edu.pl

2. Generał characteristics of the course

2.1. Language of instruction	English
2.2. Entry requirements	The basics of biology, knowledge of human sciences, the basics of statistics

3. Detailed characteristics of the course

3.1. Type of classes	Lectures: 15
3.2. Place of course delivery	Courses in the teaching rooms of UJK
3.3. Form of assessment	Credit with grade
3.4. Teaching methods	Lecture: informative, problem-centered, conversational, case study method.
3.5.a. Basic reading list	1.Epidemiology and Public Health Medicine 2.Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health 9781455706587 3.Oxford Handbook of Public Health Practice 3e 9780199586301
3.5.b. Supplementary reading list	1.Lecture Notes: Epidemiology, Evidence-based Medicine and Public Health 9781444334784 2.Lecture Notes on Epidemiology & Public Health Medicine

4. Objectives, content and learning outcomes

4.1. Course objectives (taking into account the form of classes)

- **CO1.** Preparing the student for gaining and analyzing the basic data about health phenomena in the community as well as forecasting their impact on the functioning of health care, assessment of the state of health of the population based on epidemiological and demographic data.
- **CO2.** Acquaintance with the determinants of health and disease by means of selected measures of health status of the population and possibilities of their use.
- **CO3.** Preparing to conduct a basic assessment of human health, taking into account the interpretation of the results of subjective and physical tests as well as additional research.

4.2. Course content (taking into count the form of classes)

Lectures

1. The basic concepts of epidemiology. The importance of epidemiology in public health.

2. The assessment of the state of health of the population. Health status indicators.

3. Health policy. Epidemiological research- the basic information, classification, measurement errors, the difference between the epidemiological and clinical diagnosis, survey questionnaire.

4. Environmental diseases related to the place of residence –exposure analysis. Assessment of the severity of infectious diseases in the area of Kielce, epidemiology of cancer, smoking, reproductive health as the exam-ples of epidemiological research.

5. The methods of measurements of selected physical parameters of the environment of human existence.

6. Epidemiology of infectious diseases. The flu caused by A H1/N1 virus as the example of epidemiological activities. Nosocomial infections. Vaccinations, vaccination strategy.

4.3. Course learning outcomes

Course learning outcomes (code)	Upon completion of the course, the student	Alignment with programme learning outcomes
	in the area of knowledge knows and understands:	
W01	The epidemiology of infections with viruses, bacteria, fungi, prions and parasites including geographical range of their occurrence;	C.W11.
W02	Environmental and epidemiological factors, causes, symptoms, principles of diagnosis, and therapeutic management for the most common diseases in children and their complications: 1. Rickets, tetany, disturbances in water-electrolyte and acid-base balance; 2. Heart defects, myocarditis, endocarditis, pericarditis, cardiomyopathies, arrhythmias, heart failure, arterial hypertension, pulmonary hypertension, syncope; 3. Respiratory system diseases and allergies, including congenital respiratory system defects, bronchiectasis, respiratory infections, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, atopic dermatitis, anaphylactic shock, angioedema; 4. Anemia, bleeding disorders, bone marrow failure, childhood cancers, including typical solid tumors of childhood, primary and secondary immunodeficiencies; 5. Acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, peptic ulcer disease, inflammatory bowel diseases, pancreatic disorders, cholestasis, liver diseases, food allergies, congenital gastrointestinal defects; 6. Acute kidney injury, chronic kidney disease, urinary tract infections, urinary disorders, congenital urinary system defects, vesicoureteral reflux disease, kidney stones, glomerular diseases, tubulointerstitial diseases (tubulopathies, renal tubular acidosis), genetically determined kidney diseases, renovascular hypertension; 7. Growth disorders, thyroid and parathyroid diseases, adrenal gland disorders, diabetes, obesity, puberty disorders, gonadal function disorders; 8. Cerebral palsy, encephalitis, meningitis, seizures, epilepsy; 9. The most common infectious diseases in childhood; 10. Systemic connective tissue diseases, including juvenile idiopathic arthritis, systemic lupus erythematosus, dermatomyositis, systemic vasculitis, and other causes of musculoskeletal pain (non-inflammatory, infectious and reactive arthritis, and juvenile spondyloarthropathies).	E.W3.
W03	Environmental and epidemiological factors, causes, symptoms, principles of diagnosis, and therapeutic management in the case of the most common internal diseases occurring in adults and their complications:	E.W7.

W04	Environmental and epidemiological factors, causes, symptoms, principles of diagnosis, and therapeutic management in the case of the most common neurological diseases and their complications: 1. Headaches, including migraines, tension-type headaches, headache syndromes, and neuralgia of the fifth and third cranial nerves; 2. Cerebrovascular diseases, particularly stroke; 3. Epilepsy; 4. Infections of the nervous system, especially meningitis, Lyme disease, herpes encephalitis, and neurotransmission diseases; 5. Dementias, particularly Alzheimer's disease, frontotemporal dementia, vascular dementia, and other dementia syndromes; 6. Basal ganglia disorders, particularly Parkinson's disease; 7. Demyelinating diseases, especially multiple sclerosis; 8. Neuromuscular system diseases, particularly amyotrophic lateral sclerosis, sciatica, compressive neuropathies; 9. Cranio-cerebral traumas, especially concussion; 10. Tumors;	E.W16.
W05	Environmental and epidemiological factors, causes, symptoms, principles of diagnosis, and therapeutic management in the case of the most common psychiatric diseases and their complications: 1. Schizophrenia; 2. Affective disorders; 3. Neurotic and adjustment disorders; 4. Eating disorders; 5. Disorders related to the use of psychoactive substances; 6. Sleep disorders; 7. Dementias; 8. Personality disorders;	E.W18.
W06	Topics in oncology, including: 1. Genetic, environmental, and epidemiological determinants, causes, symptoms, principles of diagnosis, and therapeutic management in the most common cancers and their complications; 2. Clinical symptoms of the most common paraneoplastic syndromes; 3. Basics of early cancer detection, principles of screening tests, and preventive actions in oncology; 4. Possibilities and limitations of contemporary cancer treatment (surgical methods, radiotherapy, and systemic methods, including immunotherapy), indications for cellular and gene therapies, and targeted and personalized treatments; 5. Early and late complications of oncological treatment; 6. The role of supportive care, including nutritional support; 7. Principles of organizing care for oncology patients, including genetic counseling and multidisciplinary care; 8. Practical aspects of statistics in oncology, including principles of interpreting clinical trial results; 9. Most important scales and classifications used in oncology; 10. Principles of conducting targeted physical examinations of adults in the area of the breast and prostate gland; 11. Principles of planning diagnostic, therapeutic, and preventive procedures in cancer treatment based on test results and provided medical documentation.	E.W24.
W07	Environmental and epidemiological determinants, causes, symptoms, principles of diagnosing and therapeutic as well as preventive management of the most common infectious diseases and their complications: 1. Bacterial diseases, including streptococcal, staphylococcal, pneumococcal, and meningococcal infections, whooping cough, tuberculosis, Lyme disease, and gastrointestinal infections;	E.W33.

	2. Viral diseases, including respiratory and gastrointestinal tract infections, viral hepatitis, Herpesviridae infections, human immunodeficiency virus, and neurotropic viruses; 3. Parasitic diseases, including giardiasis, amoebiasis, toxoplasmosis, malaria, toxocariasis, trichinosis, ascariasis, tapeworm infections, and enterobiasis; 4. Fungal infections, including candidiasis, aspergillosis, and pneumocystosis; 5. Hospital-acquired infections;	
W08	Environmental and epidemiological determinants, causes, symptoms, principles of diagnosing and therapeutic management in the most common dermatological and sexually transmitted diseases;	E.W35.
W09	Environmental and epidemiological determinants, causes, symptoms, principles of diagnosing and therapeutic management in the most common diseases in general practice;	E.W37.
W10	Methods for assessing the health status of individuals and populations, indicators and principles for monitoring population health, disease and medical procedure classification systems;	G.W1.
W11	Determinants of diseases, methods for identifying and studying disease risk factors, advantages and disadvantages of epidemiological studies, and principles of causal inference in medicine;	G.W2.
W12	Epidemiology of infectious diseases, including healthcare-associated infections, and non-communicable diseases, types and methods of prevention at different stages of the natural history of disease, and the role and principles of epidemiological surveillance;	G.W3.
W13	Epidemiology of cancer diseases, in particular their nutritional, environmental and other lifestyle conditions affecting oncological risk;	G.W21.
W14	the importance of screening tests in oncology, including the risks associated with diagnostic tests in healthy people, and health benefits in relation to the most common cancer diseases in the Republic of Poland.	G.W22.

in the area of skills knows how to:

U01	Describe the demographic structure of the population and, based on this, assess and predict health problems of the population;	G.U1.
U02	Collect information about the determinants and presence of risk factors for infectious and non-infectious diseases and plan preventive actions at various levels of prevention;	G.U2.
U03	Assess the epidemiological situation of infectious and non-infectious diseases in the Republic of Poland and worldwide;	G.U4.

in the area of social competences is able to:

K01	Establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences;	K.S1.
K02	Do what is right for the patient;	K.S2
K03	Respect medical confidentiality and patient's rights;	K.S3.
K04	Take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness;	K.S4.
K05	Recognize his/her own limitations and self-evaluate educational deficiencies and needs;	K.S5.
K06	Promote healthy lifestyle;	K.S6.
K07	Use reliable information sources;	K.S7.
K08	Conclude on the basis of own surveys and observations;	K.S8.

K09	Introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment;	K.S9.
K10	Give opinions concerning various aspects of professional activity;	K.S10.
K11	Take responsibility for own decisions made during professional activities including own safety and safety of other people.	K.S11.

4.4. Assessment methods for learning outcomes

Assessment method (+/-)

Course learning outcomes (code)	Oral/written/ practical examinaion /other (specify)*	Test*	Project*	In-class activity*	Independent study*	Group work*	Other Observation

Type of classes

1: / 2:	L	PC	...	L	PC	...	L	PC	...	L	PC	...	L	PC	...	L	PC	...	L	PC	...
W01-W14	+																				
U01-U03	+																				
K01-K11																			+		

Annotation. 1: form of classes; 2: learning outcomes

4.5. Assessment criteria for learning outcomes

Type of classes:

LECTURE (L) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	61%- 68% Learning programme content on the basic level, replies chaotic, leading questions necessary.
3,5	69% -76% The student mastered most of the program content at a satisfactory level, presents knowledge after being directed, can apply it in typical situations.
4,0	77% -84% The student mastered the content of the program at a satisfactory level, presents knowledge independently, can apply it in typical situations.
4,5	85% -92% He mastered the full range of knowledge of program content, presents it independently, knows new medical novelties, can apply it after focusing in new situations.
5,0	93% -100% He mastered the full range of knowledge of program content, presents it independently, knows medical novelties, can apply it in new situations.

5. ECTS credit allocation – student workload

Category	Student workload (full-time mode)	Student workload (part-time mode)
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER (CONTACT HOURS)	**15**	
Participation in lectures*	10	
Participation in seminars/laboratories*		
Other (specify) e.g. classes conducted with the use of distance learning methods and techniques*		
INDEPENDENT STUDY (NON-CONTACT HOURS)	**10**	
Preparation for lectures*	10	

Preparation for seminars/laboratories*		
Preparation for examination/test*		
Gathering materials for project, online research*		
Preparation of a multimedia presentation*		
Other (specify)*		
TOTAL HOURS	**25**	
ECTS CREDITS for the course	**1**	

*** delete as appropriate**

Approved for implementation (date and legible signatures of course instructors in the given academic year):

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