


**PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of social medicine and humanitarian disciplines**

"APPROVED"

 Head of Department
Lyudmila DUDARENKO
"31" August 2022

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

" Social medicine, public health "

Module "Public Health "

LEVEL OF HIGHER EDUCATION Second (master's) level
DEGREE OF HIGHER EDUCATION Master's degree
BRANCH OF KNOWLEDGE 22 Healthcare
SPECIALTY 222 Medicine

Reviewed and approved
at the meeting of the department of social medicine and
humanitarian disciplines
Protocol No. 1 dated August 31 , 2022

Kyiv 2022

Working program of educational discipline **Social Medicine, Public Health** for the preparation of students of higher education of the second (master's) level of higher education in specialty 222 Medicine.

Developer : Phd in medicine Z.H. Krushinska

Agreed

The first vice-rector

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Oleksandra SOROKA

INTRODUCTION

The program of the educational discipline " Social medicine, public health " is compiled in accordance with the educational and professional program for training specialists of the second (master's) level of specialty 222 "Medicine", field of knowledge 22 "Health care", the Law of Ukraine "On Higher education" dated 01.07.2014 No. 1556-VII (Article 13, Clause 7), Regulations "On the organization of the educational process at the International Academy of Ecology and Medicine" PVNZ", methodical recommendations approved by the Central Methodical Office of Higher Medical Education of the Ministry of Health of Ukraine regarding development of programs of educational disciplines in accordance with industry standards of higher education. The discipline "Social medicine, public health" belongs to the section of General training of the curriculum for the preparation of students of higher education of the second educational (master's) level.

The educational discipline "Social medicine, public health" involves mastering:

biostatistics , which involves the definition and analysis of basic biostatistical indicators and criteria based on the principles of evidence-based medicine;

population health statistics based on the analysis of a complex of medical indicators (demographic, morbidity, disability, physical development);

health care organizations, i.e. system activities to ensure preservation, strengthening, and restoration of population health, including medical care organizations and public health systems;

the economic foundations of the system of medical care for the population based on the study of the organizational and legal basis of the activity of health care institutions in market conditions, economic analysis and methods of evaluating financial and economic activity in the field of health care.

Description of the academic discipline

Name indicators	Field of knowledge, direction of training (specialty), educational and qualification level	Characteristics of the academic discipline	
		full-time education	
The number of credits is 3	Branch of knowledge: 22 "Healthcare"		
Modules - 2	Specialty: 222 "Medicine",	Year:	
		the 6th	
		Semester	
The total number of hours is 90		XI	XII
		Lectures	
	Education level: master	10 hours	10 hours
		Practical training	
		30 hours	30 hours
		Independent (individual) work	
		50 hours	50 hours
		type of control	
		differential calculation	

The subject of study of the academic discipline is modern principles of evidence-based medicine, theoretical and methodological foundations of biostatistics, laws of population health, health care system, its organization and economy.

Interdisciplinary connections.

" Social medicine, public health " as an academic discipline:

is based on students' study of academic disciplines: history of medicine, informatics, ethics, hygiene and ecology, epidemiology, sociology and medical sociology, fundamentals of economic theories;

lays the foundations for the study of the organization of the treatment and diagnostic process, as well as the assessment of its scope and quality when studying clinical disciplines;

provides a study of the legal and organizational foundations of the health care industry;

contributes to the formation of the preventive direction of activities of future doctors, taking into account the possible impact on the health of the population of factors of various origins, risk assessment in the development of complex medical and social measures in interaction with the public health system;

contributes to the formation of an economic worldview and basic competence characteristics regarding the methodology of economic analysis of the activities of medical institutions in modern conditions.

1. PURPOSE OF STUDY AND TASK EDUCATIONAL DISCIPLINE

1.1. The purpose of studying the educational discipline " Social medicine, public health " is to master the necessary knowledge, skills and acquire competences in research, analysis and evaluation of population health indicators, organization, resource provision and activity of the health care system, development from the standpoint of evidence of medicine, recommendations on prevention and elimination of the harmful effects of factors on health and on improving the organization of medical assistance to the population and the public health system.

1.2. The main tasks of the academic discipline "Social medicine, public health" are :

- mastering the theoretical foundations of biostatistics;
- mastering modern principles of evidence-based medicine;
- familiarization with methods of definition and analysis of basic biostatistical indicators and criteria;
- assimilation of methodical and theoretical bases of formation of statistical aggregates for their further adequate analysis;
- assimilation of the methods of definition, analysis and assessment of the main indicators of population health according to separate criteria and in relation to the factors affecting it;
- assimilation of regularities and features of the formation of population health;
- mastering the principles of developing measures to preserve and strengthen the health of the population and its individual contingents;
- mastering the theoretical foundations and legal foundations of the health care system, its functions and strategic directions of development;
- mastering the principles, directions, tasks of the public health system;
- mastering the basics of the organization of medical care, the principles of evaluating the organization and the quality of providing various types of medical care to the population in the conditions of reforming the health care sector;
- formation of knowledge on the issue of disability examination, its types, order of organization and actions of medical workers regarding specific situations of disability examination;
- mastering the principles of development of management solutions aimed at improving the activities of health care institutions;
- mastering the basics of economic analysis of the activity of a medical institution;
- mastering the principles of analysis and evaluation of financial and economic indicators of the economic activity of medical institutions for the purpose of rational use of available resources;
- formation of knowledge on issues of price policy, strategic and tactical planning of the economic development of a medical institution;
- familiarization with the development of a business plan for entrepreneurial activity in the health care system.

1.3. Competences and learning outcomes , the formation of which contributes to the discipline:

1.3.1. Integral competence is the ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements.

1.3.2. General competences :

- ability to apply knowledge in practical situations;
- knowledge and understanding of the subject area and understanding of the profession;
- the ability to self-regulate and lead a healthy lifestyle, the ability to adapt and act in a new situation;
- the ability to choose a communication strategy; ability to work in a team; interpersonal skills;
- skills in using information and communication technologies;
- the ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly educated;
- the ability to evaluate and ensure the quality of performed works;
- determination and persistence in relation to assigned tasks and assumed duties;
- the ability to act socially responsibly and consciously.

1.3.3. Special (professional, subject) competences :

- the ability to assess the main indicators of population health;
- the ability to assess the impact of socio-economic and biological determinants on health, their trends in different population groups, risk determination;

the ability to identify manifestations of health inequalities caused by social determinants and develop appropriate measures to reduce them;

the ability to apply basic concepts and concepts of evidence-based medicine and biostatistics when planning, conducting and interpreting research results;

the ability to organize the provision and integration of medical assistance to the population;

the ability to ensure control over the quality of provided health care services at an appropriate level;

the ability to plan and conduct disease prevention measures among the population, including in cooperation with public health specialists;

the ability to develop and implement systems for monitoring and evaluating the effectiveness of interventions in preventive and diagnostic or screening programs;

the ability to analyze the activity of the health care system, institutions, divisions or health care professionals;

the ability to conduct an examination of working capacity;

ability to process state, social and medical information.

ability to carry out advocacy, communication and social mobilization in the field of public health using various communication channels and techniques;

ability to identify health priorities, conduct needs assessments, develop and implement evidence-based strategies, and propose evidence-based interventions.

Matrix of competences

No	Competence	Knowledge	Skill	Communication	Autonomy and responsibility
1	2	3	4	5	6
1.	Conducting epidemiological and medical-statistical researches on the health of the population	Knowledge of epidemiological (descriptive, analytical) and medical-statistical research methods. Knowledge of the requirements for diagnostic tests that can be used for screening studies. Knowledge of risk indicators and methods of their calculation	To have standard methods of descriptive, analytical epidemiological and medical-statistical studies. Be able to calculate and evaluate indicators of individual and population health, in dynamics and when compared with average static data.	The ability to formulate conclusions about the state of health of the population based on the data of epidemiological and medical-statistical studies. The ability to interact with specialists of the information and analytical units in order to obtain data on the state of health of the population.	Responsibility for the validity of conclusions regarding the state of health of the population
2..	Processing of medical information.	Knowledge of standard procedures, including modern computer information technologies, for processing medical information.	Be able to determine the source of finding the necessary information; ability to perform statistical processing of material and analysis of received information.	The ability to form conclusions based on the analysis and statistical processing of the received information.	Responsibility for high-quality and timely processing and analysis of statistical information.
3.	Assessment of the impact of socio-economic and biological determinants on health.	Knowledge of socio-economic and biological determinants that affect the health of the population	To be able to evaluate the relationship and influence of socio-economic and biological factors on the health of an individual, family, population health.	The ability to formulate conclusions regarding the influence of socio-economic and biological factors on the health of the population.	Responsibility for the validity of assessments of risk factors for the health of the population.
4.	Carrying out measures for the organization and integration of medical care.	Knowledge of the health care system. Knowledge of types of medical care and main types of health care facilities.	Be able to organize your own work and working in a team with junior staff or in an interdisciplinary team; determine the patient's rational medical route.	The ability to interact, including informationally, with colleagues.	Responsibility for the validity of conclusions regarding the improvement of the organization, routing and ensuring the integration of medical care.
5.	Carrying out measures to ensure the quality and safety of medical care.	Knowledge of the main characteristics of the quality of medical care. Knowledge of the main	To be able to control the quality of medical care based on statistical data, expert	The ability to obtain the necessary information from specified sources.	Responsibility for the validity of management decisions at the level

		components of improving the quality of medical care, requirements for medical standardization	evaluation and sociological research data, to identify factors that prevent	Ability to inform relevant officials to ensure conditions regarding	of a doctor, institution, unit regarding the improvement of the quality of medical care.
6.	Carrying out an examination of working capacity.	Basic knowledge of medical and social expertise. Knowledge of the main normative documents regulating the establishment of the type, degree and duration of incapacity for work. Knowledge of the main types of temporary disability and the procedure for its implementation.	To be able to determine the presence and degree of life restrictions, the type, degree and duration of disability in a simulated clinical and organizational situation based on data about the disease and its course. Be able to draw up relevant documents certifying temporary incapacity.	The ability to organize interaction with the head of the unit, the medical and advisory commission (MCC), the medical and social expert commission (MSEK) on the issues of work capacity examination.	Responsibility for the validity of decisions regarding the medical and social examination of work capacity
7.	Conducting an analysis of the activity of a doctor, unit, health care institution.	Knowledge of the main indicators characterizing the activity of the main types of health care institutions and units. Knowledge of the main medical and organizational factors that affect the activity of the doctor of the unit, health care institution.	Be able to calculate and evaluate the main indicators of the activity of a doctor, unit, medical care facility. Be able to detect activity defects and the reasons for their formation. To be able to substantiate management decisions regarding the improvement of the activity of the doctor and the health care institution.	The ability to receive information from relevant sources about the activities of a doctor, unit, health care institution.	Responsibility for the validity of decisions regarding the improvement of the activity of the doctor, institution/health care unit.
8.	Implementation of preventive measures.	Knowledge of the principles and methods of promoting a healthy lifestyle. Knowledge of the state of health of the patient and the population and the principles of prevention.	Be able to assess the health status of patients and the population in the service area. Be able to organize promotion of a healthy lifestyle, primary prevention of diseases and injuries among the population.	Based on the results of the analysis of the health status of the population, prepare information for local management and health care authorities; regarding health promotion.	To be responsible for the timely and high-quality implementation of measures to assess the health status of contingents of the population, measures to improve health and improve health, advocate a healthy lifestyle, and primary prevention.
9.	Maintenance of medical documentation	Knowledge of the official document management system in the professional work of a doctor, including modern computer information technologies.	Be able to determine the source and location of the required information depending on its type. Be able to process information and analyze the received information.	The ability to receive the necessary information from a specified source. The ability to form conclusions based on the analysis of the received information.	Responsibility for the completeness and quality of information analysis and conclusions based on its analysis.

Learning outcomes.

1. Integrative final program learning outcomes, the formation of which is facilitated by the educational discipline:

acquiring knowledge, skills and acquiring competences in assessing the health status of the population and the influence of determinants on it, risk assessment, as well as the development and implementation of preventive measures aimed at preserving, strengthening the health and social well-being of the population;

acquiring knowledge, skills and acquiring competences in evaluating the activity of the health care system, institutions, divisions or health care professionals; identifying and eliminating negative factors

affecting their work, as well as developing measures to improve the organization and improve the activities of health care professionals and institutions.

2. Learning outcomes for the discipline.

As a result of studying the discipline "Social medicine, public health", the student should know:

- definition of social medicine, public health as an educational discipline and its role in the health care organization system;
 - theoretical and methodological foundations of social medicine and public health;
 - basic organizational elements of statistical research;
 - methodological bases and criteria for choosing the main adequate methods of analysis for testing statistical hypotheses;
 - theoretical and methodical bases of analysis of statistical results, their evaluation and description in order to form reasonable conclusions;
 - peculiarities of interpretation of the concept of "health", indicators of population health;
 - regularities in the formation of the demographic situation, its features in different countries;
 - components of the medical and social significance of morbidity and methods of its study;
 - classification of risk factors, assessment of their possible impact on public health;
 - legal principles of modern health care;
 - basic principles and types of medical assistance to the population, peculiarities of medical provision of various contingents of the urban and rural population (women, children, workers of enterprises, elderly people);
 - the organization and content of the work of medical institutions and doctors of the main specialties (family, district therapists and pediatricians, obstetricians-gynecologists, geriatricians, doctors of emergency medicine, hygienists, etc.);
 - principles of mandatory and voluntary health insurance;
 - features of management systems and components of the management process
 - the main strategic and tactical plans for the economic development of the medical institution;
 - definition of a marketing strategy that will ensure the maximum satisfaction of the population's needs in medical care;
 - determination of the price policy aimed at the implementation of the strategic and operational tasks of the medical institution;
 - development of a business plan for entrepreneurial activity in the health care system;
 - the basic principles of determining the insurance premium for voluntary health insurance;
 - principles of determining the optimal payment method for medical service providers;
 - stages of conducting an economic analysis of the activities of medical institutions and enterprises.
- As a result of studying the discipline "Social medicine, public health", the student should be able to:
- analyze and evaluate the state of health of the population;
 - analyze and evaluate state, social and medical information using standard approaches and computer information technologies;
 - assess the impact of adverse factors on the state of health of the population (individual, family, population) in the conditions of a medical institution according to standard methods, assess risk;
 - determine public health priorities, conduct needs assessment, propose science-based measures and develop appropriate strategies;
 - to plan disease prevention measures among the population to prevent the spread of diseases;
 - carry out advocacy, communication, and social mobilization in the field of public health using various communication channels and techniques;
 - to analyze and evaluate the activity of the health care system, its legal, financial, personnel support;
 - to carry out statistical, economic and financial and economic analysis of the effectiveness of health care institutions;
 - develop and plan management solutions aimed at improving the activities of health care institutions;
 - to organize the provision of medical services, to ensure control over the quality of the provided services at the appropriate level;
 - draw up strategic and tactical plans for the economic development of the medical institution;
 - draw up business projects in the field of health care;
 - form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs;

to be aware of and be guided in their activities by civil rights, freedoms and duties, to raise the general educational cultural level.

2. INFORMATION VOLUME OF THE EDUCATIONAL DISCIPLINE

270 hours, 9 ECTS credits are allocated to the study of the academic discipline. The discipline is divided into 4 modules, studied in the 3rd, 4th and 6th years. Module 2 "Public Health" is one of the 4 modules of the discipline "Social Medicine, Public Health", the study of which is allocated **90** hours, 3 ECTS credits.

3. PROGRAM OF EDUCATIONAL DISCIPLINE

The types of training sessions according to the curriculum are lectures, practical sessions, independent work of students and consultations.

The lectures cover the main theoretical material of a single or several topics of the academic discipline, reveal the main problematic issues of the relevant sections of the discipline.

Practical classes involve a detailed examination by students of individual theoretical provisions of the academic discipline with the teacher and the formation of the skills and abilities of their practical application through the student's individual performance of formulated tasks and solving situational problems.

The independent work of students involves the student's mastery of the educational material, namely, the independent study of individual topics of the academic discipline in the time free from mandatory educational classes, and also involves preparation for all types of control. The educational material of the discipline provided by the working curriculum for assimilation by the student in the process of independent work is submitted to the final control along with the educational material that was worked out during classroom classes.

Consultations (individual or group) are held with the aim of helping students to understand and clarify issues that are difficult for independent understanding, to solve complex problems that arose during independent processing of educational material in preparation for a practical class, a final class or before an exam.

Adequate teaching methods are used when studying the discipline.

According to the sources of knowledge, teaching methods are used: verbal - story, explanation, lecture, instruction; visual - demonstration, illustration; practical - practical work, problem solving. According to the nature of the logic of knowledge, methods are used: analytical, synthetic, analytical-synthetic, inductive, deductive. According to the level of independent mental activity, methods are used: problem-based, partially research-based, research.

Specific goals of the academic discipline:

to know the definition of public health as a science and subject of teaching, its importance for health care practice; methods of public health and the possibilities of their application in the study of the health of the population and the organization of its medical support;

to know population health indicators; classification of risk factors; definition of demography, its constituent parts; methods of studying morbidity, its types;

explain the medical and social significance of morbidity;

learn the influence of the main factors that determine the level of public health;

familiarize yourself with the content of the main state targeted programs regarding socially important diseases;

determine and analyze indicators of natural population movement and morbidity: general, infectious, important non-epidemic, hospitalized.

Topic 1. Public health, functions and services.

Public health as a science and subject of teaching. Basic terms and definitions, the history of the creation of the public health system. Basic operational functions of public health. Basic public health services. Modern development of the public health system in Ukraine and the world. Public health infrastructure.

Topic 2. Epidemiological supervision and assessment of the state of health and well-being of the population.

Disease surveillance system. Monitoring of morbidity and prevalence of diseases. Registers of infectious and non-infectious diseases. Monitoring of diseases and health indicators of mothers and children,

mental health, social health. Registers of environmentally caused diseases, occupationally caused diseases. Epidural supervision of injuries. Diagnosing the health of local communities, identifying gaps, inequalities in health, needs for action planning.

Topic 3. Population health: main determinants.

Targeted approaches to defining the concept of "health": generally philosophical, individual theoretical, individual practical, population. Population health as a conditional statistical concept. Methods of studying health. Population health indicators: demographic (birth rate, mortality, average life expectancy); physical development; morbidity; disability. Leading groups of factors affecting the health of the population: the level and lifestyle of people, the state of the environment, biological factors, availability and quality of medical care. Peculiarities of health of different sex-age, professional population groups. Public health strategies for health preservation.

Topic 4. Medical and social problems of demographic processes.

Demography as a science. Sources. Dynamics of the number and composition of the population in different regions of the world, countries and in Ukraine. Gender and age composition of the population. Natural population movement. Fertility, indicators and factors affecting fertility. Modern trends and regional characteristics of birth rates in Ukraine and the world. General mortality, its leading causes in different regions, individual countries and in Ukraine, sex-age and territorial features. Infant mortality (infant mortality). The value of the indicator for assessing the state of health of the population, the level of socio-economic well-being and the development of society. Leading causes of infant mortality. Average life expectancy, definition of the concept. Methodology for determining the indicator, its dynamics in different regions of the world, individual countries and in Ukraine.

Topic 5. Methods of studying and evaluating the main demographic indicators of the natural movement of the population. Analysis of the demographic situation.

Documents used to study the natural movement of the population. The procedure for registering births in Ukraine. The essence of the concepts "live birth", "stillbirth", "death of the fetus". Methods of determining and evaluating general and special birth rates. Total mortality. The procedure for registering deaths in Ukraine. Methods of studying mortality, determination of general and special indicators, their meaning and assessment. Structure of causes of mortality. Natural population growth. Population changes. Mechanical and natural population movement. Depopulation. Analysis of regional features and dynamics of demographic indicators. Assessment of the demographic situation.

Topic 6. Analysis of the composition of the population by age, sex, place of residence.

The importance of studying the age structure of the population. The type of age structure of the population (progressive, regressive, stationary) and its changes. "Age pyramid". Gender disparity: causes and consequences. Population urbanization as a socio-economic problem.

Topic 7. Population aging. Analysis of social security indicators and demographic burden.

Problems related to the aging of the population. The average life expectancy of the population, incl. men and women in Ukraine and the world, its dynamics. Indicator of demographic load. Labor potential of the country.

Topic 8. Life as a value. Attitude towards death and dying as a moral problem.

Formation of attitude towards life as a human value. Psychological and spiritual support in striving for life, defining death as a natural process in old age or illness. Ensuring a dignified end to earthly life. Moral and ethical aspects of relation to natural death and euthanasia.

Topic 9. Methods of studying and evaluating infant mortality rates.

Procedure for registration of infant (toddler) mortality. Methodology for determining indicators of general, neonatal, early neonatal, late neonatal, and post-neonatal mortality of infants. Assessment of the ratio of infant mortality and neonatal mortality. Perinatal mortality. Leading causes of infant mortality in different age periods of the first year of life. The main groups of factors affecting the formation of infant mortality levels (biological, environmental, medical and organizational, lifestyle).

Topic 10. Methods of studying and evaluating factors affecting the health of the population.

Classification of risk factors affecting health. Methodical approaches to the study of factors that determine the level of health of the population and its separate contingents. Peculiarities of the study of the influence of factors: socio-economic, socio-biological, ecological and natural-climatic, medical and organizational. Application of biostatistics methods (derivative and average values, standardization method,

correlation-regression analysis, parametric and non-parametric assessment of the probability of research results, point, rating assessment).

Topic 11. Morbidity of the population as a medical and social problem.

The concept of morbidity, the purpose of its study, peculiarities in Ukraine and the world. Medico-social significance of morbidity as a leading cause of temporary and permanent disability, mortality. The impact of morbidity on the needs of the population in providing medical care, on the health of future generations. Economic costs associated with morbidity, incl. with incidence of socially significant and dangerous diseases. Methods of studying morbidity, possibilities of using individual methods, their advantages and disadvantages. Factors affecting the completeness of data on morbidity depending on the methods of its study. International statistical classification of diseases, injuries and causes of death, principles of its construction and significance. Types of morbidity studied in Ukraine. Differences in morbidity rates of urban and rural populations, different age and gender groups. Disability as an indicator of population health, its medical and social significance.

Topic 12. Methods of study and assessment of indicators of general morbidity.

Study of morbidity based on requests for medical assistance. Methodology for determining indicators of primary morbidity and prevalence of diseases, their assessment. Dynamics of indicators of general and primary morbidity, regional features.

Topic 13. Methodology for studying and evaluating incidence rates for the most important socially significant diseases.

Diseases of the circulatory system, oncological, neuropsychiatric diseases, diabetes, tuberculosis, HIV infection/AIDS, trauma, alcoholism, drug addiction and toxic addiction as medical and social problems. Leading factors affecting the prevalence of diseases. Dynamics of the main indicators. Trauma as a medical and social problem, types of trauma, accounting of cases, dynamics of indicators, age and sex characteristics in regions of the world and in Ukraine.

Topic 14. Methodology for studying and evaluating indicators of morbidity with temporary loss of working capacity.

The sheet of incapacity for work as a source of information for the study of morbidity with temporary loss of working capacity. Indicators: number of cases and days of incapacity for work per 100 employees, average duration of the case. In-depth study of the morbidity of workers depending on seniority, profession, working conditions.

Topic 15. Methodological foundations of disease burden research. Significance of the results for the public health system.

Determination of the list of diseases, organization of constant monitoring. A set of indicators (DALE, HALE) characterizing the global burden of diseases: calculation methodology and assessment. Significance of disease burden research results for the public health system. Improving the health of the least socially protected population. Measures to reduce morbidity and mortality from the most common diseases in Ukraine and Europe.

Topic 16. Medical and social aspects of disability. Calculation methodology and analysis of disability indicators.

Disability as an indicator of population health. Violation of body functions leading to disability. Disability groups. Causes of disability. Classes of diseases causing the main causes of disability of the population. Indicators of disability: general disability (contingents of the disabled), primary disability (disability). The structure of causes of general and primary disability. Trauma as a cause of disability in children and adults. Disability among children and adults. Regional features and dynamics of disability indicators.

Topic 17. Comprehensive assessment of population health.

Population health indicators. The main sources of information in the study of population health. Health criteria and groups. Comprehensive assessment of individual health. Assessment of quality of life. Comprehensive assessment of population health. Integral indicators of the comprehensive assessment of the population's health: population vitality coefficient; human development index. Indicators of the WHO population health assessment system (Summary Measures of Population Health): disability-adjusted life expectancy indicator - DALE (disability-adjusted life expectancy); health-adjusted life expectancy indicator - HALE (health-adjusted life expectancy).

Topic 18. Analysis of indicators of physical development.

Characteristics of physical development as an indicator of population health. Definition of the concept of "physical development", its genetic and social conditioning. Biological development and morpho-functional development. Methods of assessment of physical development. Regional features and dynamics of indicators of physical development.

Topic 19. Providing strategic leadership in the interests of health and well-being.

Strategic management: definition, key provisions. Types of strategic leadership in the interests of health. Vectors of development. Nationwide approach. The principle of participation of the whole society. A set of policy implementation tools. Political participation and leadership. Strategic planning of public health services, policy planning and monitoring of its implementation.

Topic 20. Methodology for analyzing the causes of social inequality in relation to health and its protection.

Obstacles on the way to ensuring the necessary conditions for maintaining individual health. Social inequality as a cause of unsatisfactory access to medical care and social support. Analysis of the causes of social inequality in relation to health and its protection. Ways to improve the health of all strata of the population.

Topic 21. Ecological public health. Ensuring the protection of public health, including the safety of the environment, labor, food products, etc.

Ecological public health. Components of people's living environment: natural environment (environment), social environment (society) and man-made environment (domestic and industrial). The main sources of threats to the health of an individual or the community. Protection of people's living environment. Creating a "comfort zone" for a fulfilling life. The importance of intersectoral cooperation and international cooperation for the protection of people's living environment.

Topic 22. Emergency situations in the field of public health. Bioterrorism.

Global threats to international health in the XXI century. Emergency situations in the field of public health: consequences of climate change, epidemics, mass exposure to chemical substances, radiation disasters. International security in the field of public health. The role of WHO in the organization of notification and rapid response in emergency situations. The concept of international health, current problems of international health on the example of the European region. Bioterrorism is a global threat to international health. Biological weapons. Strategy of the public health system to reduce the risks of using biological weapons and their negative consequences.

Topic 23. Stresses and conflicts. Mechanisms of protection of people from the actions of stress.

Stresses and conflicts as a cause of non-infectious diseases. Psychohygiene as the basis of prevention.

Topic 24. Moral, ethical and legal aspects of health care interventions.

Development of reproductive medicine. Artificial insemination, surrogate motherhood, gamete donation: moral and ethical aspects. The role of reproductive medicine in solving the problem of low fertility. Moral, ethical and legal aspects of transplantation.

Topic 25. Prevention and intersectoral cooperation in the public health system.

Prevention in the public health system: population, group, individual. Primary, secondary and tertiary prevention. Health promotion as a preventive activity of the health care system. International programs to ensure preventive activities of the health care system. Targeted preventive programs to combat the most socially significant diseases: coronary heart disease, hypertension, diabetes, tuberculosis, malignant neoplasms. The role of intersectoral cooperation in increasing the effectiveness and efficiency of preventive measures.

Topic 26. Screening programs for early detection of diseases and risk factors.

Screening as a preventive technology. Screening programs for early detection of diseases and risk factors, their use.

Topic 27. Informational and explanatory activities (advocacy) as a component of medical prevention.

Informing society, decision-makers, politicians about existing and potential threats to health, health problems, needs for preventive measures. The art and technique of informing, influencing and motivating people, institutions, and audiences regarding important issues of health determinants. Tasks and content of the work of public health centers, their structural subdivisions, interaction with other health care institutions. Development of preventive strategies to protect and strengthen health, reducing the negative impact of determinants on the health of the population. Preventive programs and disease prevention strategies.

Topic 28. Health promotion. Types, forms and methods.

Methods and means of medical and hygienic training and education of the population, their features in various health care institutions. Definition of the concepts of "health promotion", "healthy lifestyle", "prevention". Types of prevention. The importance of forming a healthy lifestyle for preserving and strengthening the health of the population. Leading lifestyle factors affecting the health of the population. Directions for the formation of a healthy lifestyle. Development of questionnaires for the study of factors influencing the state of health of the population. Drawing up a plan of lectures.

Topic 29. Communication and social mobilization in the interests of health. Press releases and communication with mass media.

The importance of communication in matters of preserving and strengthening health. Forms of communications. Communication channels. The importance of relations with the public and mass media. Problems and possible errors. A press release in public health is an important form of conveying medical information to the general public; rules of drafting and use.

Topic 30. Informatization of public health. Medical information systems in the world and in Ukraine.

Information technologies in the global health care system. Medical information systems: saving information, quick access to information, mutual exchange of information, conducting statistical analysis of aggregated data, reducing staff time and reducing the number of errors. Terminological standards and rubricators. Complex automation of medical institutions. Electronic document management. Electronic card of the patient.

Topic 31. Visualization and effective presentation of health data. Dissemination and use of results.

Effective presentation of health data. Traditional forms of data presentation in the form of charts and tables. Data visualization using modern technologies: infographics, animation, interaction. Forms of presentation: posters, postcards, booklets, presentations, films

4. STRUCTURE OF THE EDUCATIONAL DISCIPLINE

No	Name of topics	Number of hours			
		L	PR	S.S.	IN TOTAL
1.	Public health, functions and services	2	-	-	2
2.	Surveillance and assessment of the state of health and well-being of the population	-	2	2	4
3.	Population health: the main determinants	2	-	-	2
4.	Medical and social problems of demographic processes	2	-	-	2
5.	Methods of studying and evaluating the main demographic indicators of the natural movement of the population. Analysis of the demographic situation	-	2	2	4
6.	Analysis of the composition of the population by age, sex, place of residence	-	-	1	1
7.	Aging population. Analysis of social security indicators and demographic burden	-	-	1	1
8.	Life as a value. Attitude towards death and dying as a moral problem	-	-	1	1
9.	Methods of studying and evaluating infant mortality rates	-	2	2	4
10.	Methods of study and assessment of factors affecting the health of the population	-	2	2	4
11.	Morbidity of the population as a medical and social problem	2	-	-	2
12.	Methods of study and assessment of indicators of general morbidity	-	2	2	4
13.	Methodology of study and assessment of incidence rates for the most important socially significant diseases	-	2	2	4
14.	Methodology of study and assessment of indicators of morbidity with temporary loss of working capacity	-	-	1	1
15.	Methodological foundations of research on the burden of diseases. Significance of the results for the public health system	-	2	2	4
16.	Medical and social aspects of disability. Calculation methodology and analysis of disability indicators	-	2	2	4

17.	Comprehensive assessment of population health	-	2	2	4
18.	Analysis of indicators of physical development	-	-	1	1
19.	Providing strategic leadership in the interests of health and well-being	-	-	1	1
20.	Methodology for analyzing the causes of social inequality in relation to health and its protection	-	2	2	4
21.	Ecological public health. Ensuring the protection of public health, including the safety of the environment, labor, food products, etc	-	-	1	1
22.	Emergency situations in the field of public health. Bioterrorism	-	-	1	1
23.	Stresses and conflicts. Mechanisms of protection of people from the actions of stress	-	-	1	1
24.	Moral-ethical and legal aspects of health care interventions	-	-	1	1
25.	Prevention and intersectoral cooperation in the public health system	2	-	-	2
26.	Screening programs for early detection of diseases and risk factors	-	-	1	1
27.	Informational and explanatory activities (advocacy) as a component of medical prevention	-	2	2	4
28.	Health promotion. Types, forms and methods	-	2	2	4
29.	Communication and social mobilization in the interests of health. Press releases and communication with mass media	-	2	2	4
30.	Informatization of public health. Medical information systems in the world and in Ukraine	-	-	1	1
31.	Visualization and effective presentation of health data. Dissemination and use of results	-	-	1	1
32.	Final modular control	-	4	5	9
	Implementation of S.S.			6	6
	Hours in general	10	30	50	90

Note: L-lectures, PR - practical classes, S.S. - independent work of students

5. THEMATIC PLAN OF LECTURES

No	Topic names	Number of hours
1.	Public health, functions and services	2
2.	Population health: the main determinants	2
3.	Medical and social problems of demographic processes.	2
4.	Morbidity of the population as a medical and social problem	2
5.	Prevention and intersectoral cooperation in the public health system	2
	Total hours per module	10

6. THEMATIC PLAN OF SEMINAR LESSONS

Seminar classes are not provided for in the curriculum.

7. THEMATIC PLAN OF PRACTICAL LESSONS

No	Topic names	Number of hours
1.	Surveillance and assessment of the state of health and well-being of the population	2
2.	Methods of studying and evaluating the main demographic indicators of the natural movement of the population. Analysis of the demographic situation	2
3.	Methods of studying and evaluating infant mortality rates	2
4.	Methods of study and assessment of factors affecting the health of the population	2
5.	Methods of study and assessment of indicators of general morbidity	2
6.	Methodology of study and assessment of incidence rates for the most important socially significant diseases	2
7.	Methodological foundations of research on the burden of diseases. Significance of the results for the public health system	2
8.	Medical and social aspects of disability. Calculation methodology and analysis of disability indicators	2
9.	Comprehensive assessment of population health	2
10.	Methodology for analyzing the causes of social inequality in relation to health and its protection	2

11.	Informational and explanatory activities (advocacy) as a component of medical prevention	2
12.	Health promotion. Types, forms and methods	2
13.	Communication and social mobilization in the interests of health. Press releases and communication with mass media	2
14.	Final modular control	4
	Total hours per module	30

8. THEMATIC PLAN OF LABORATORY LESSONS

Laboratory classes are not included in the curriculum.

9. THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

No	Topic names	Number of hours
1.	Analysis of the composition of the population by age, sex, place of residence	1
2.	Aging population. Analysis of social security indicators and demographic burden	1
3.	Life as a value. Attitude towards death and dying as a moral problem	1
4.	Methodology of study and assessment of indicators of morbidity with temporary loss of working capacity	1
5.	Analysis of indicators of physical development	1
6.	Providing strategic leadership in the interests of health and well-being	1
7.	Ecological public health. Ensuring the protection of public health, including the safety of the environment, labor, food products, etc	1
8.	Emergency situations in the field of public health. Bioterrorism	1
9.	Stresses and conflicts. Mechanisms of protection of people from the actions of stress	1
10.	Moral-ethical and legal aspects of health care interventions	1
11.	Screening programs for early detection of diseases and risk factors	1
12.	Informatization of public health. Medical information systems in the world and in Ukraine	1
13.	Visualization and effective presentation of health data. Dissemination and use of results	1
14.	Theoretical preparation for practical classes	26
14.1.	Surveillance and assessment of the state of health and well-being of the population	2
14.2.	Methods of studying and evaluating the main demographic indicators of the natural movement of the population. Analysis of the demographic situation	2
14.3.	Methods of studying and evaluating infant mortality rates	2
14.4.	Methods of study and assessment of factors affecting the health of the population	2
14.5.	Methods of study and assessment of indicators of general morbidity	2
14.6.	Methodology of study and assessment of incidence rates for the most important socially significant diseases	2
14.7.	Methodological foundations of research on the burden of diseases. Significance of the results for the public health system	2
14.8.	Medical and social aspects of disability. Calculation methodology and analysis of disability indicators	2
14.9.	Comprehensive assessment of population health	2
14.10.	Methodology for analyzing the causes of social inequality in relation to health and its protection	2
14.11.	Informational and explanatory activities (advocacy) as a component of medical prevention	2
14.12.	Health promotion. Types, forms and methods	2
14.13.	Communication and social mobilization in the interests of health. Press releases and communication with mass media	2
	Final modular control	5
	Implementation of S.S.	6
	Total hours per module	50

10. INDIVIDUAL TASKS

Individual lessons are not provided for in the curriculum.

11. PRACTICAL SKILLS

Acquiring practical skills is not provided for in the curriculum.

12. INDIVIDUAL TASKS

FOR STUDENTS TO PERFORM INDEPENDENT WORK

1. Maternal mortality as an important indicator of population health: main causes and trends in Ukraine.
2. Modern characteristics of infectious disease in the population of Ukraine: main trends and problems. HIV and AIDS in Ukraine: current situation, ways to overcome problems.
3. Emergency situations in the field of public health. Bioterrorism.
4. Analysis of the dynamics of tuberculosis incidence in the population in Ukraine: main trends and problems.
5. Modern characteristics of the incidence of diseases of the circulatory system in the population of Ukraine: causes and consequences of modern trends.
6. Modern characteristics of the incidence of malignant neoplasms in the population of Ukraine: causes and consequences of modern trends.
7. Tobacco, alcohol and drug use is a social and medical problem of society: the situation in Ukraine and ways to solve it.
8. Analysis of the dynamics of diabetes incidence in Ukraine: main trends and problems.
9. Analysis of the dynamics of injury indicators in Ukraine and the countries of the world. Features and types of traumatization of children and adults.
10. The state of health of the population affected by the accident at the Chernobyl nuclear power plant - current trends.
11. Prevention and intersectoral cooperation in the public health system.
12. Characteristics of a person's lifestyle and its components. Influence of lifestyle, behavioral risk factors on the health of the population of Ukraine.
13. Characteristics of the state of the environment and its components. The influence of environmental factors on the health of the population of Ukraine. Ecological public health.
14. Health promotion. Informational and explanatory activities (advocacy) as a component of medical prevention.
15. April 7 - World Health Day: slogan of the current year, events held to celebrate World Health Day in the world and in Ukraine.

Performing independent work by students involves the preparation of a presentation on this topic with a mandatory performance (defense of the work) at a practical session.

13. TEACHING METHODS

1. **Verbal** (lecture, explanation, story, conversation, instruction).
 2. **Visual** (observation, illustration, demonstration).
 3. **Practical** (various types of exercises, performing graphic works, carrying out an experiment, practice).
- teaching methods** are also used during the educational process :
- explanatory-illustrative or information-receptive , which involves the presentation of ready-made information by the teacher and its assimilation by students;
 - reproductive , which is based on the performance of various tasks according to the model;
 - method of problem presentation , which consists in the fact that the teacher poses a problem and solves it himself, demonstrating the contradictions that characterize the learning process, while the students' task is to control the sequence of presentation of the material, the materiality of the evidence, predicting the next steps of the teacher; this method is implemented by training students in problem situations with the aim of successful preliminary preparation for future work in real conditions of practical medical institutions;
 - partially search or heuristic , aimed at mastering individual elements of search activity, for example: the teacher formulates a problem, students - a hypothesis;
 - research , the essence of which is the teacher's organization of students' search and creative activity by posing new problems and problematic tasks;
 - methods that ensure perception and assimilation of knowledge by students (lectures, independent work, instruction, consultation);
 - methods of applying knowledge and acquiring and consolidating abilities and skills (practical classes, control tasks);
 - methods of checking and evaluating knowledge , abilities and skills.

14. CONTROL METHODS

Preliminary (incoming) control serves as a means of identifying the existing level of knowledge of students for their use by the teacher in a practical session as orientation in the complexity of the material. It is conducted in order to assess the strength of knowledge and to determine the degree of perception of new educational material.

Current control - control of independent work of students regarding the study of educational materials. It is carried out at each practical lesson in accordance with the specific goals of the topic in order to check the degree and quality of mastering the studied material. In all practical classes, objective control of theoretical preparation and mastering of practical skills is applied in order to check the student's readiness for the class. In the process of ongoing control, the student's independent work is evaluated in terms of the completeness of tasks, the level of assimilation of educational materials, mastering of practical skills of analytical and research work, etc.

Boundary (thematic) control mastering the chapter (subchapter) takes place after completing the study of the block of relevant topics through testing and/or oral interview and/or performance of structured tasks. Thematic control is an indicator of the quality of studying the topics of the discipline's sections and students' assimilation of practical skills, as well as the related cognitive, methodical, psychological and organizational qualities of students. It is held in a specially designated - final - session.

Intermediate control consists in evaluating students' assimilation of educational material on the basis of their performance of certain types of work in practical (seminar) classes for a certain period. It is conducted in the form of a semester credit at the last practical (seminar) class in the semester.

Final control performs a control function, is carried out for the purpose of evaluating the results of training at a certain educational and qualification level or at individual completed stages. It is conducted in the form of a test, a differentiated test or an exam in order to establish the content of students' knowledge in terms of volume, quality and depth, as well as the ability to apply them in practical activities. During the final control, the results of the completion of all types of educational work according to the structure of the work program are taken into account.

15. CALCULATION SCHEME AND DISTRIBUTION OF POINTS

During the assessment of mastery of each topic for the current educational activity, the student is given grades on a 4-point (national) grading scale. At the same time, all types of work provided for by the discipline program are taken into account. The student must receive a grade in each topic. Estimates given on a traditional scale are converted into points. The final grade for the current educational activity is recognized as an arithmetic average (the sum of grades for each class is divided by the number of classes in the semester) and is converted into points according to table 1.

The maximum number of points that a student can score for the current educational activity for admission to the exam is 120 points.

The minimum number of points that a student must score for the current educational activity for admission to the exam is 72 points. The calculation of the number of points is carried out on the basis of the grades received by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places.

Table 1

**Recalculation of the average grade
for current activity in a multi-point scale**

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.47	179	3.94	158	3.42	137
4.97	199	4.45	178	3.92	157	3.4	136
4.95	198	4.42	177	3.89	156	3.37	135
4.92	197	4.4	176	3.87	155	3.35	134
4.9	196	4.37	175	3.84	154	3.32	133
4.87	195	4.35	174	3.82	153	3.3	132
4.85	194	4.32	173	3.79	152	3.27	131
4.82	193	4.3	172	3.77	151	3.25	130
4.8	192	4.27	171	3.74	150	3.22	129
4.77	191	4.24	170	3.72	149	3.2	128
4.75	190	4.22	169	3.7	148	3.17	127
4.72	189	4.19	168	3.67	147	3.15	126
4.7	188	4.17	167	3.65	146	3.12	125
4.67	187	4.14	166	3.62	145	3.1	124
4.65	186	4.12	165	3.6	144	3.07	123
4.62	185	4.09	164	3.57	143	3.05	122
4.6	184	4.07	163	3.55	142	3.02	121
4.57	183	4.04	162	3.52	141	3	120
4.55	182	4.02	161	3.5	140	Less than 3	Not enough
4.52	181	3.99	160	3.47	139		
4.5	180	3.97	159	3.45	138		

Assessment of individual student tasks.

Points for individual tasks are awarded only under conditions of their successful completion and defense. The number of points awarded for different types of individual tasks depends on their volume and importance, but no more than 10-12 points. They are added to the sum of points scored by the student in

classes during the current educational activity. In no case can the total amount for the current activity exceed 120 points.

Assessment of students' independent work.

Students' independent work, which is provided for by the topic of the lesson along with classroom work, is evaluated during the current control of the topic in the corresponding lesson. The mastery of topics that are presented only for independent work is checked during the final module control.

The maximum number of points that a student can score during the exam is 80 points.

The evaluation of the final control is considered passed if the student scored at least 60% of the maximum number of points (for a 200-point scale – at least 50 points).

Determining the number of points a student has scored in a discipline: the number of points a student has scored in a discipline is determined as the sum of points for the current educational activity and for the final control (exam).

Conversion of the number of points from the discipline into grades on the ECTS scale and on the four-point (traditional) scale

Subject scores are independently converted to both the ECTS scale and the national assessment scale, but not vice versa (table 2).

Table 2

Recalculation of the average grade for current activity in a multi-point scale

4-point scale	120-point scale	4-point scale	120-point scale	4-point scale	120-point scale	4-point scale	120-point scale
5	120	4.45	107	3.91	94	3.37	81
4.95	119	4.41	106	3.87	93	3.33	80
4.91	118	4.37	105	3.83	92	3.29	79
4.87	117	4.33	104	3.79	91	3.25	78
4.83	116	4.29	103	3.74	90	3.2	77
4.79	115	4.25	102	3.7	89	3.16	76
4.75	114	4.2	101	3.66	88	3.12	75
4.7	113	4.16	100	3.62	87	3.08	74
4.66	112	4.12	99	3.58	86	3.04	73
4.62	111	4.08	98	3.54	85	3	72
4.58	110	4.04	97	3.49	84	Less than 3	Not enough
4.54	109	3.99	96	3.45	83		
4.5	108	3.95	95	3.41	82		

Evaluation criteria according to the traditional 4-point and ECTS scale

Score in points	Rating by national scale	Rating according to the ECTS scale
180-200	Perfectly	A
160-179	Fine	B
150-159		C
130-149	Satisfactorily	D
120-129		E
50-119	Unsatisfactorily	FX
0-49		F

Evaluation criteria.

During the evaluation of the mastery of each topic for the current educational activity, the higher education applicant is given grades according to the national (traditional) scale, taking into account the approved evaluation criteria:

grade "excellent" (5) - the student flawlessly mastered the theoretical material of the topic of the lesson, demonstrates deep and comprehensive knowledge of the relevant topic, the main provisions of scientific primary sources and recommended literature, thinks logically and constructs an answer, freely uses the acquired theoretical knowledge when analyzing practical material, expresses his attitude to certain problems, demonstrates a high level of assimilation of practical skills;

grade "good" (4) - the student has well mastered the theoretical material of the lesson, has the main aspects from primary sources and recommended literature, presents it in a reasoned way; possesses

practical skills, expresses his thoughts on certain problems, but certain inaccuracies and errors are assumed in the logic of the presentation of theoretical content or in the performance of practical skills;

grade "satisfactory" (3) - the student has basically mastered the theoretical knowledge of the subject, orients himself in primary sources and recommended literature, but answers unconvincingly, confuses concepts, additional questions cause the student uncertainty or lack of stable knowledge; when answering questions of a practical nature, reveals inaccuracies in knowledge, does not know how to evaluate facts and phenomena, connect them with future activities, makes mistakes when performing practical skills;

rating "unsatisfactory" (2) - the student has not mastered the educational material of the topic, does not know scientific facts, definitions, hardly orients himself in primary sources and recommended literature, lacks scientific thinking, practical skills are not formed.

Estimates given on a traditional scale are converted into points. The minimum number of points that a student must score for the current academic activity per semester for admission to the exam is 120 points.

16. QUESTIONS FOR THE FINAL MODULAR CONTROL

1. Public health, functions and services.
2. Targeted approaches to defining the concept of "health". Population health indicators. Burden of disease.
3. Leading groups of factors affecting the health of the population, their classification. Surveillance and assessment of the state of health and well-being of the population.
4. The subject and content of demography, the importance of demographic data for health care practice. Sources of information, main indicators.
5. Birth rate, indicators in Ukraine. Factors affecting the birth rate.
6. Mortality. Methodology for calculating general and special indicators. Features and causes of mortality in different population groups. Infant mortality. Leading causes, factors influencing its formation. Medical and social aspects of reducing infant mortality.
7. Average life expectancy (LEP), relationship with the human development index (HDI). Trends in the dynamics of social security in different regions of the world, individual countries and in Ukraine. Taking into account the impact of the "burden of disease" on SOT.
8. Morbidity, its medical and social significance. Study methods, their advantages and possibilities. International statistical classification of diseases, injuries and causes of death, principles of its construction and significance.
9. General morbidity, sources of study. Indicators of general morbidity, peculiarities among the urban and rural population.
10. Infectious morbidity: feasibility of special accounting, main indicators.
11. Incidence of the most important socially significant diseases: list of nosological forms, main indicators.
12. Hospitalized morbidity: concepts, main indicators.
13. Morbidity with temporary disability, main indicators.
14. The concept of types of population pathology. Their characteristics. Leading non-infectious diseases: diseases of the circulatory system, malignant neoplasms, diabetes, chronic obstructive pulmonary diseases, their medical and social significance.
15. Leading risk factors for non-infectious diseases: use of tobacco, alcohol, low physical activity, unhealthy diet, metabolic risk factors.
16. Tuberculosis as a medical and social problem.
17. HIV infection/AIDS as a medical and social problem.
18. Traumatism, medical and social significance.
19. Physical development. Criteria for the study of biological and morpho-functional development. Modern trends of indicators of physical development.
20. Disability: main causes of disability, groups of disabilities, factors affecting it. Determination and assessment of disability indicators.
21. International health. Bioterrorism.
22. Inequality in the health of the population and its protection. Detection and reduction.

23. Ecological public health. Provision of public health protection, including safety of the environment, labor, food products .
24. Prevention and intersectoral cooperation in the public health system. Types of prevention. Preventive programs in health care. Screening.
25. Health promotion. Informational and explanatory activities (advocacy) as a component of medical prevention.
26. Communication and social mobilization in the interests of health.
27. Tasks and content of the work of public health centers, their structural subdivisions on prevention and formation of a healthy lifestyle, interaction with other health care institutions.
28. Moral and ethical aspects of health care interventions .
29. Informatization of public health. Medical information systems.
30. Providing strategic leadership in the interests of health and well-being.

17. MEANS OF IMPLEMENTATION CURRENT AND FINAL CONTROL

1. Lecture notes
2. Lecture presentations.
3. Tables,
4. Thematic plans of lectures and practical classes.
5. Control questions, tests, problem questions, situational tasks.
6. List of tasks for independent work of students.
7. Statistical directories, reports of medical and preventive institutions, calculators.
8. Additional literature and illustrative materials.

18. RECOMMENDED LITERATURE

BASIC (MAIN):

1. Public health: national textbook / V. F. Moskalenko, O. P. Gulchii, T. S. Gruzheva [and others]; ed.: V. F. Moskalenko; Ministry of Health of Ukraine; National honey. University named after O. O. Bogomolets. - 3rd edition. – Vinnytsia: Nova kniga, 2018. – 560 pp., illustrations, tables.
2. Economic analysis of the use of resources in the health care system / V.D. Parii, Yu.M. Safonov, N.M. Zakharova and others. / Under the general editorship of Professor V.D. Pariah /. Education manual - Zhytomyr: "Polyssia", 2019. - 148 p.
3. Social medicine and the organization of health care (for students of stomatological faculties of higher medical educational institutions of Ukraine of the IV level of accreditation / By general editor V.F. Moskalenko. - K.: Kniga plus, 2019, - 328 p.
4. Golyachenko O.M. Social medicine and health care organization. - Kyiv: VSV "Medicine", 2018. - 208 p.
5. Collection of test tasks for state examinations in hygiene, social medicine, organization and economics of health care / edited by V.F. Moskalenko, V.G. Bardova, O.P. Yavorovsky – Vinnytsia: Nova Kniga, 2019. – 200 p.
6. Moskalenko V. F. Methodology of evidence-based medicine: textbook / V. F. Moskalenko, I. E. Bulak, O. G. Puzanova. - Kyiv: Medicine, 2018. - 199 p. : ill., tab.

AUXILIARY:

1. Kaplan, Inc. Step 1. Lecture Notes. - Kaplan Medical, 2018. - 2567 p.
2. Biostatistics: textbook / V. F. Moskalenko, O. P. Gulchii, M. V. Golubchikov [and others]; ed. V. F. Moskalenko. - K.: Book Plus, 2009. - 184 p.
3. S. Glanz. Medical and biological statistics. Trans. with English — M., Practice, 2011. — 459 p.
4. Grynhalckh T. Fundamentals of evidence-based medicine: trans. with English - M.: GEOTAR-MED, 2004. - 240 p.
5. Report on the state of health care in Europe 2012. Course for well-being. - WHO, 2013. - 190 p.
6. Report on the state of health in the world in 2013 - WHO, 2013. - 206 p. (access mode: www.who.int/whr/2013/report/ru).
7. Economics of health care: textbook. – Vinnytsia: Nova Kniga, 2010. – 288 p.

8. Epidemiological methods of studying non-infectious diseases / V.M. Lekhan, Yu.V. Voronenko, O.P. Maksymenko et al. - D.: ART-PRESS, 2004. - 184 p.
9. Collection of test tasks for state tests in hygiene, social medicine, organization and economics of health care. Education manual. – Vinnytsia: New Book, 2012 – 200 p.
10. Health 2020 – foundations of European policy and strategy for the 21st century. - WHO, 2013. - 232 p.
11. Methods of studying the health of the population: Study guide for students of medical faculties / Agarkov V.I., Buteva L.V.; Hryshchenko S.V. etc. – Donetsk: DonNMU, 2011. – 106 p.
12. Moskalenko V.F. Healthcare systems: modern context. - K.: "Knyga-plus", 2012. - 320 p.
13. Population of Ukraine. Demographic yearbook. - K.: Derzhkomstat of Ukraine. (access mode: www.ukrstat.gov.ua).
14. Health care of Ukraine: state, problems, prospects / L. A. Chepelevska, O. R. Sytenko, V. V. Bedniy [and others]; under the editorship V. V. Lazoryshyntsa. - Kyiv: 2014. - 607 p. : ill., tab.
15. Health care in Ukraine: organization and legislative support: monograph / A. I. Kozachenko, V. M. Pashkov, V. P. Lysak [and others]; according to general ed. : V. P. Lysak, V. M. Pashkova, I. A. Golovanova. – Kyiv: MORION, 2014. – 335 p. : ill., tab.
16. Primary health care/family medicine/ edited by V.M. Knyazevich - K., 2010. - 404 p.
17. Popchenko T.P. Reforming the sphere of health care in Ukraine: organizational, regulatory and legal and financial and economic support. - K.: NISD, 2012. - 96 p.
18. Handbook of social medicine and health care organization. - K.: "Health", 2002. - 359 p.
19. Practical guide to medical statistics: Textbook for medical universities/ Ed. YOU. Agarkova - Donetsk: "Knowledge" (Donetsk branch), 2011. - 276 p.
20. Program test questions on social medicine and health care organization. – Ternopil: Ukrmedknyga, 2001. – 316 p.
21. Semigina T. V. Health policy analysis: study guide / T. V. Semigina. - K.: NaUKMA, 2012. - 479 p. : tab., fig.
22. Modern approaches to quality management of medical care at various hierarchical levels / Ed. O.P. Chip - M., 2012. - 164 p.
23. Social medicine and the organization of health care (for students of stomatological faculties of higher medical educational institutions of Ukraine of IV level of accreditation. - K.: Kniga plyus, 2010. - 328 p.
24. Theory of statistics. Textbook / Ed. Gromyko G.L. - M.: Infra-m, 2010. - 414 p.
25. Annual report on the state of health of the population, the sanitary-epidemic situation and the results of the health care system of Ukraine. 2016 / Ministry of Health of Ukraine, State University "UISD of Ministry of Health of Ukraine". - Kyiv, 2017. - 516 p.
26. Health care economy / I.M. Sheiman, S.V. Shishkin, M.G. Kolosnitsyna - Higher School of Economics, 2009. – 480 p.
27. Health care economics: textbook. – Vinnytsia: Novaya Kniga, 2010. – 144 p.

INFORMATION RESOURCES

1. World Health Organization www.who.int.
2. European database "Health for all" www.euro.who.int/ru/home.
3. Cochrane Center for Evidence-Based Medicine www.cebm.net.
4. Cochrane Library www.cochrane.org.
5. US National Library of Medicine - MEDLINE www.ncbi.nlm.nih.gov/PubMed.
6. Canadian Center for Evidence in Health www.cche.net.
7. Center for Disease Control and Prevention www.cdc.gov.
8. Public Health Center of the Ministry of Health of Ukraine www.phc.org.ua.
9. Ukrainian database of medical and statistical information "Health for all": <http://medstat.gov.ua/ukr/news.html?id=203>.
10. British Medical Journal www.bmj.com.
11. Journal of Evidence-Based Medicine www.evidence-basedmedicine.com.