



INTERNATIONAL EUROPEAN UNIVERSITY
EDUCATIONAL AND RESEARCH INSTITUTE
"EUROPEAN MEDICAL SCHOOL"

**Department of Fundamental, Medical and Preventive
Disciplines**

APPROVED by
The Scientific and Methodical Council of the
University, protocol dd. August 29, 2023 No. 7
Deputy Chair of SMC *O. LISNICHUK*

WORKING PROGRAM OF THE ACADEMIC DISCIPLINE:
SOCIAL MEDICINE, PUBLIC HEALTH

to train students of the second (Master's) level
(full-time mode of study)

Knowledge area 22 "Health care"

Specialty 222 "Medicine"

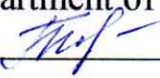
Educational program: Medicine

Discipline status: Compulsory

Kyiv – 2023


The working program of the **Social medicine, public health** academic disciplines is based on the Medicine educational and professional program for the second (Master) level of the 222 Medicine specialty approved by the University Academic Council on May 30, 2023, protocol №4.

PROGRAM DEVELOPER:

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The working program of the academic disciplines is reviewed and approved by the Department of Fundamental, Medical and Preventive Disciplines, protocol No. 1 dd. August 25, 2023.

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The program is reviewed and approved by the Academic Council of the European Medical School, protocol No. 1 dd. August 29, 2023.

Chair of the Academic Council
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INTRODUCTION

The study program of the academic discipline " Social medicine, public health " was developed in accordance with Standard of higher education of Ukraine for the training of specialists of the second (master's) level, field of knowledge 22 - "Health care", specialty - 222 "Medicine", educational qualification "Master of Medicine", professional qualification "Doctor".

Description of the academic discipline

The program of study of the discipline " Social medicine, public health " is intended for higher medical institutions of education of Ukraine in accordance with the requirements of the credit-transfer system of the organization of the educational process of the ECTS , based on a combination of learning technologies by sections and credit assessment credits - units of measurement of the student's educational load of the necessary to learn a discipline or its section.

In accordance with the curriculum for training specialists of the second (master's) level of higher education in the field of knowledge 22 "Health care", the academic discipline " Social medicine, public health " is taught in the 3rd year of study.

For the study of the discipline " Social medicine, public health " 3 credits (90 hours) are provided, of which 40 are classroom hours and 50 are independent work.

Information volume of the academic discipline

| Name of indicators | Field of knowledge, direction of training, educational and qualification level | Characteristics of the academic discipline |
|---|---|--|
| | | full-time education |
| The number of credits is 5 | Branch of knowledge 22 "Health care " | Normative Year of training - 3rd |
| Content sections – 3 | Training direction "Medicine" | |
| The total number of hours is 90 the total number of classrooms hours - 40 | Specialty: 222 "Medicine" | Semester |
| | | the 6th |
| Weekly load: classrooms – 2 | Education level: "Master of Medicine" qualifications of a professional "doctor" | Lectures - 4 hours. |
| | | Practical 36 hours |
| | | Independent work 50 hours. |
| | | Type of control: settlement |

The subject of study of the academic discipline is modern theoretical and methodical bases of analysis and evaluations indicators health people, developments with positions proof of medicine recommendations with warning and elimination of harmful impact factors for health

Interdisciplinary connections.

In order to successfully master the discipline, a student of higher education needs

the knowledge obtained in the process of studying the following disciplines of general training: "History of Ukraine with a course in the history of medicine", "Medical informatics", "Hygiene and ecology", "Bioethics and medical communications", "Principles of evidence-based medicine and methodology of scientific research". The main discipline lays the foundations for studying the organization of the medical and diagnostic process, assessing its volume and quality when studying the following clinical disciplines: "Internal Medicine", "Surgery", "Pediatrics", "Obstetrics" and "gynecology", provides the study of the legal and organizational foundations of the field of health care, contributes to the formation of the preventive direction of the 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 system public health _

1. The purpose and tasks of the educational discipline

The purpose of the educational discipline " Social medicine, public health " follows from the goals of the educational and professional training program for graduates of a higher education institution and is determined by the content of those systemic knowledge and skills that a doctor must master. The knowledge that students receive from the academic discipline is basic for the block of disciplines that provide professional and practical (PP block) training.

1.1. The purpose of teaching the academic discipline " Social medicine, public health " is

- mastering the necessary knowledge, skills and acquiring competencies regarding research, analysis and evaluation of population health indicators;
- organization, resource provision and activity of the health care system, development from the standpoint of evidence-based medicine, recommendations for prevention and elimination of the harmful effects of factors on health and for improving the organization of medical assistance to the population and the public health system.

1.2 Main tasks of the academic discipline " Social medicine, public health " is:

- 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;

1.3 Competencies and learning outcomes

The list of graduate competencies, the formation of which is facilitated by studying the discipline of the discipline " Social medicine, public health " and its relationship with the normative content of the training of students of higher education in the field of knowledge 22 "Health care", formulated in terms of learning outcomes in the Standard of higher education of education of Ukraine, the second (master's) level of higher education.

According to the requirements of the Standard of Higher Education of Ukraine, the second (master's) level of higher education in the discipline " Social medicine, public health " ensures that students acquire the following levels of competence:

| general competence (ZK) | |
|--------------------------------------|--|
| ZK 1 | Ability to abstract thinking, analysis and synthesis |
| ZK 2 | Ability to learn and master modern knowledge |
| ZK 3 | Ability to apply knowledge in practical situations |
| ZK 4 | Knowledge and understanding of the subject area and understanding of professional activity |
| ZK 5 | Ability to adapt and act in a new situation |
| ZK 6 | Ability to make informed decisions |
| ZK 7 | Ability to work in a team |
| ZK 8 | Ability to interpersonal interaction |
| ZK 10 | Ability to use information and communication technologies |
| ZK 11 | Ability to search, process and analyze information from various sources |
| ZK 12 | Determination and persistence in relation to assigned tasks and assumed responsibilities |
| ZK 13 | Awareness equals opportunities and gender problems |
| ZK 14 | Ability realize your rights and duties as member society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human rights and freedoms and citizen in Ukraine. |
| ZK 15 | Ability save and multiply moral, cultural, scientific values and the achievements of society based on an understanding of history and patterns of development objective region, her places in general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms motor activity for active recreation and driving healthy way life |
| Professionals competence (FC) | |
| FC 6 | Ability to definition principles and character treatment and prevention diseases |
| FC 13 | Ability to carry out sanitary and hygienic and preventive measures |

| | |
|--|---|
| FC 14 | Ability to plan and carry out preventive and anti-epidemic measures regarding infectious diseases |
| FC 16 | Ability to maintain medical documentation, including electronic forms. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility |
| FC 17 | The ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population. |
| FC 18 | The ability to analyze the activity of a doctor, unit, health care institution, ensure the quality of medical care and increase the efficiency of the use of medical resources. |
| FC 19 | The ability to organize and integrate the provision of medical assistance to the population and the marketing of medical services. |
| FC 20 | Ability to conduct epidemiological and medical-statistical studies of the health of the population; processing of social, economic and medical information. |
| FC 21 | It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying. |
| FC 22 | Ability to manage healthcare workflows that are complex, unpredictable and require new strategic approaches. |
| FC 23 | The ability to develop and implement scientific and applied projects in the field of health care |
| FC 25 | Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results |
| Software the results teaching (PRN) | |
| PRN 1 | Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy. |
| PRN 2 | Understanding and knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care. |
| PRN 3 | Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems. |
| PRN 1 6 | Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment. |

| | |
|---------------|--|
| PRN 18 | To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of the person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents. |
| PRN 19 | Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population. |
| PRN 20 | Analyze epidemiological state and conduct activities mass and individual, general and local prevention infectious diseases |
| PRN 21 | Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information |
| PRN 22 | Apply modern digital technologies, specialized software, and statistical methods of data analysis to solve complex healthcare problems. |
| PRN 23 | Assess the impact of the environment on human health in order to assess the morbidity of the population. |
| PRN 24 | To organize the required level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity. |
| PRN 25 | It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists. |
| PRN 27 | Communicate freely in the national and English languages, both orally and in writing to discuss professional activities, research and projects. |
| PRN 28 | Make effective decisions on health care issues, assess the necessary resources, take into account social, economic and ethical consequences. |
| PRN 29 | Plan, organize and conduct activities with specific prevention infectious diseases, in ago number of according to with National calendar preventive vaccinations, as mandatory Yes and recommended Manage vaccine residues, organize additional vaccination campaigns, including activities with immunoprophylaxis |

After completing the study of the discipline " Social medicine, public health "

Students should know:

- socio-economic and biological determinants that affect the health of the population;
- requirements for diagnostic tests that can be used for screening studies;
- risk indicators and methods of their calculation;
- standard procedures for processing medical information;
- operational functions of public health;
- principles and methods of promoting a healthy lifestyle;
- principles of prevention;

- system of official document circulation in the professional work of a doctor, including modern computer information technologies.

After completing the study of the discipline " Social medicine, public health " students should be able to:

- identify health priorities, conduct needs assessments, develop and implement evidence-based strategies, and propose evidence-based interventions;
- calculate and evaluate indicators of individual and population health;
- evaluate the connection and influence of factors on the health of an individual, family, population;
- identify manifestations of health inequalities caused by social determinants and develop appropriate measures to reduce them;
- organize own work and work in a team with junior staff or in an interdisciplinary team;
- organize promotion of a healthy lifestyle, primary prevention of diseases and injuries among the population;
- determine the source and location of the necessary information, process the information and conduct its analysis.

2. **Information volume of the academic discipline**

To study the academic discipline " Social medicine, public health " 5 ECTS credits are assigned, 150 hours.

The program of the academic discipline is structured and presented in 2 sections and 3 substantive sections.

CHAPTER 1. PUBLIC HEALTH

Content section 1 . Public health, functions and services Health of the population

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": general 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).

Content section 2. Morbidity of the population

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 disability certificate as a source of information for studying the incidence of temporary disability. 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. Evaluation of the 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 morphofunctional 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.

SECTION 2. PROBLEMS of PUBLIC HEALTH PROTECTION

Content section 3. Provision of public health protection

Topic 21. Ecological public health. Provision of public health protection, including environmental, labor, food safety, 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. A 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 education 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.

The structure of the academic discipline

| SECTION 1 . PUBLIC HEALTH | | | | | |
|---|---|---|---|---|---|
| <i>Content section 1 . Public health, functions and services Health of the population</i> | | | | | |
| 1 | Public health, functions and services. | 3 | 2 | - | 1 |
| 2 | Surveillance and assessment of the state of health and well-being of the population. | 3 | - | 1 | 2 |
| 3 | Population health: the main determinants. | 3 | - | 1 | 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 . | 4 | - | 2 | 2 |
| 6 | Analysis of the composition of the population by age, sex, place of residence. | 3 | - | 1 | 2 |
| 7 | Aging population. Analysis of social security indicators and demographic burden. | 3 | - | 1 | 2 |
| 8 | Life as a value. Attitude towards death and dying as a moral problem. | 2 | - | - | 2 |
| 9 | Methods of studying and evaluating infant mortality rates. | 4 | - | 2 | 2 |
| 10 | Methods of study and assessment of factors affecting the health of the population. | 3 | - | 2 | 1 |
| <i>Content section 2. Morbidity of the population</i> | | | | | |
| 11 | Morbidity of the population as a medical and social problem. | 4 | 2 | - | 2 |
| 12 | Methods of study and assessment of indicators of general morbidity. | 4 | - | 2 | 2 |
| 13 | Methodology of study and assessment of incidence rates for the most important socially significant diseases. | 3 | - | 2 | 1 |
| 14 | Methodology of study and assessment of indicators of morbidity with temporary loss of working capacity. | 3 | - | 2 | 1 |
| 15 | Methodological foundations of research on the burden of diseases. Significance of the results for the public health system. | 2 | - | - | 2 |
| 16 | Medical and social aspects of disability. Calculation methodology and analysis of disability indicators . | 4 | - | 2 | 2 |

| | | | | | |
|--|---|-----------|----------|-----------|-----------|
| 17 | Comprehensive assessment of population health. | 4 | - | 2 | 2 |
| 18 | Analysis of indicators of physical development. | 3 | - | 2 | 1 |
| 19 | Providing strategic leadership in the interests of health and well-being. | 2 | - | - | 2 |
| 20 | Methodology for analyzing the causes of social inequality in relation to health and its protection. | 3 | - | 2 | 1 |
| SECTION 2 . PROBLEMS OF PROTECTING THE HEALTH OF THE POPULATION | | | | | |
| <i>Content section 3. Provision of public health protection</i> | | | | | |
| 21 | Ecological public health. Provision of public health protection, including environmental, labor, food safety, etc. | 2 | - | 1 | 1 |
| 22 | Emergency situations in the field of public health. Bioterrorism. | 3 | | 1 | 2 |
| 23 | Stresses and conflicts. Mechanisms of protection of people from the actions of stress. | 3 | - | 2 | 1 |
| 24 | Moral-ethical and legal aspects of health care interventions. | 2 | - | - | 1 |
| 25 | Prevention and intersectoral cooperation in the public health system. | 2 | - | - | 2 |
| 26 | Screening programs for early detection of diseases and risk factors. | 3 | - | 2 | 1 |
| 27 | Informational and explanatory activities (advocacy) as a component of medical prevention. | 2 | - | 1 | 1 |
| 28 | Health promotion. Types, forms and methods. | 3 | - | 1 | 2 |
| 29 | Communication and social mobilization in the interests of health. Press releases and communication with mass media. | 4 | - | 2 | 2 |
| 30 | Informatization of public health. Medical information systems in the world and in Ukraine. | 3 | - | 1 | 2 |
| 31 | Visualization and effective presentation of health data. Dissemination and use of results. | 2 | - | 1 | 1 |
| | Hours in general | 90 | 4 | 36 | 50 |

3. Topics of lectures

| No | Topic name | Number hours |
|------------------------------------|--|--------------|
| 1 | Public health, functions and services. | 2 |
| 4 | Morbidity of the population as a medical and social problem. | 2 |
| Total hours per discipline* | | 4 |

Topics of seminar classes (Seminar classes are not provided for in the curriculum)

4. Topics of practical classes

| No | Topic name | Number Hour |
|---|---|-------------|
| SECTION 1. PUBLIC HEALTH | | |
| <i>Content section 3 . Public health, functions and services Health of the population</i> | | |
| 1 | Surveillance and assessment of the state of health and well-being of the population. | 1 |
| 2 | Population health: the main determinants. | 1 |
| 3 | Methods of studying and evaluating the main demographic indicators of the natural movement of the population. Analysis of the demographic situation . | 2 |
| 4 | Analysis of the composition of the population by age. Analysis of social security indicators and demographic burden. | 1 |
| 5 | Aging population. Analysis of social security indicators and demographic burden | 1 |
| 6 | Methods of studying and evaluating infant mortality rates. | 2 |
| 7 | Methods of study and assessment of factors affecting the health of the population. | |

| | | |
|--|---|-----------|
| | | 2 |
| <i>Content section 2. Morbidity of the population</i> | | |
| 9 | Methods of study and assessment of indicators of general morbidity. | 2 |
| 10 | Methodology of study and assessment of incidence rates for the most important socially significant diseases. | 2 |
| 11 | Methodology of study and assessment of indicators of morbidity with temporary loss of working capacity. | 2 |
| 12 | Medical and social aspects of disability. Calculation methodology and analysis of disability indicators . | 2 |
| 13 | Comprehensive assessment of population health. | 2 |
| 14 | Analysis of indicators of physical development. | 2 |
| 15 | Methodology for analyzing the causes of social inequality in relation to health and its protection. | 2 |
| SECTION 2 . PROBLEMS OF PROTECTING THE HEALTH OF THE POPULATION | | |
| <i>Content section 3. Provision of public health protection</i> | | |
| 16 | Ecological public health. Provision of public health protection, including environmental, labor, food safety, etc. | 1 |
| 17 | Emergency situations in the field of public health. Bioterrorism. | 1 |
| 18 | Stresses and conflicts. Mechanisms of protection of people from the actions of stress. | 2 |
| 19 | Screening programs for early detection of diseases and risk factors. | 2 |
| 20 | Informational and explanatory activities (advocacy) as a component of medical prevention. | 1 |
| 21 | Health promotion. Types, forms and methods. | 1 |
| 22 | Communication and social mobilization in the interests of health. Press releases and communication with mass media. | 2 |
| 23 | Informatization of public health. Medical information systems in the world and in Ukraine. | 1 |
| 24 | Visualization and effective presentation of health data. Dissemination and use of results. | 1 |
| Total hours per discipline | | 36 |

7. Topics of laboratory classes (Laboratory classes are not provided for in the curriculum)

8. Independent work

| No | Topic name | Number hours |
|----|--|--------------|
| | Preparation for practical classes – theoretical preparation and development of practical skills. | 27 |
| 1 | Surveillance and assessment of the state of health and well-being of the population. | 1 |
| 2 | Analysis of the composition of the population by age, sex, place of residence. | 1 |
| 3 | Aging population. | 1 |
| 4 | Life as a value. Attitude towards death and dying as a moral problem. | 1 |
| 5 | Methods of studying and evaluating infant mortality rates | 1 |
| 6 | Morbidity of the population as a medical and social problem. | 1 |
| 7 | Evaluation of indicators of general morbidity. | 1 |
| 8 | Study and assessment of incidence rates for the most important socially significant diseases. | 1 |
| 9 | Methodology of study and assessment of indicators of morbidity with temporary loss | 1 |

| | | |
|-----------------------------------|---|-----------|
| | of working capacity. | |
| 10 | Methodological foundations of research on the burden of diseases. Significance of the results for the public health system. | 1 |
| 11 | Medical and social aspects of disability. | 1 |
| 12 | Analysis of indicators of physical development. | 1 |
| 13 | Providing strategic leadership in the interests of health and well-being. | 1 |
| 14 | Analysis of the causes of social inequality in health care | 1 |
| 15 | Ecological public health. | 1 |
| 16 | Emergency situations in the field of public health. Bioterrorism. | 1 |
| 17 | Stresses and conflicts. Mechanisms of protection of people from the actions of stress. | 1 |
| 18 | Moral, ethical and legal aspects of health care interventions. | 1 |
| 19 | Intersectoral cooperation in the public health system. | 1 |
| 20 | Health promotion | 1 |
| 21 | Communication and social mobilization in the interests of health | 1 |
| 22 | Informatization of public health. Medical information systems in the world and in Ukraine. | 1 |
| 23 | Visualization and effective presentation of health data. Dissemination and use of results. | 1 |
| Total hours per discipline | | 50 |

9. Individual tasks. (not provided for in the curriculum)

10. Teaching methods

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, the following methods are used: problem-based, searching, research.

1. Verbal methods: lecture, conversation;
2. Visual methods: illustration, demonstration
3. Practical methods: performing practical work and solving situational tasks to develop skills and abilities;
4. Students' independent work on understanding and assimilation of new material
5. Use of control and educational computer programs
6. Innovative teaching methods: business game, case method, Research-based learning (RBL). Learning through research.
7. The types of training according to the curriculum are: lectures; practical training; independent work of students.

11. Control methods

Current control is carried out on the basis of control theoretical knowledge, practical skills and abilities.

Forms of current control are: *in the dream survey* (frontal, individual, combined), interview; practical verification of professional skills (conducted based on the results of practical work at the end of the class); test control ("open" and "closed" test

tasks). Current control is mandatory. During the evaluation of mastering of each topic from all disciplines of the curriculum for the current educational activity, the student is given grades on a 4-point (traditional scale) taking into account the approved evaluation criteria for the discipline. All types of work provided by the curriculum are taken into account. The student must receive a grade in each topic. The teacher conducts a survey of each student in the group at each lesson and assigns a grade in the journal of attendance and student success according to the traditional scale ("5", "4", "3", "2").

When evaluating the student's current educational activity, 20% of the grade is the student's independent work, which takes into account the knowledge of the topic of independent study and the performance of work in the notebook.

The final (summary) control of the sections is carried out at the end of the section in the form of a written test, which includes test tasks from the "Step-2" bank, theoretical questions and control of practical skills (solving situational problems, etc.).

Such methods of control as oral, written and test are used, which should contribute to increasing the motivation of students-future specialists for educational and cognitive activities. According to the specifics of professional training, preference is given to test and written control. In the case of final control, preference is given to written or test control.

12. Form of final control of study success

The final control of the discipline is carried out on the basis of control of theoretical knowledge, practical skills and abilities.

Assessment is a form of final control, which consists in assessing the student's learning of the learning material based solely on the results of his performance of certain types of work in practical, seminar or laboratory classes. Semester assessment of subjects is carried out after the end of its study, before the beginning of the examination session.

13. Scheme of accrual and distribution of points received by students

The maximum number of points for a discipline is 200 points. The ratio between the results of the evaluation of the current educational activity and the final control of knowledge is 60% and 40%.

The study of the discipline ends with a credit.

The maximum number of points that a student can score for the current educational activity while studying the discipline is 200 points, the minimum number of points - the minimum number of points - is 120 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, rounded to two decimal places.

The student receives a credit in the last lesson of the discipline based on the results of the current assessment. Only those students who do not have academic debt and whose average score for the current academic activity in the academic discipline is at least 3.00 are admitted to the credit.

The average grade for the current activity is converted into points on a 200-point scale,

according to the conversion table (Table 1).

Table 1.

Recalculation of the average grade for the current activity into a multi-point scale (for disciplines ending with credit)

| 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 | 4.44 | 178 | 3.92 | 157 | 3.39 | 136 |
| 4.94 | 198 | 4.42 | 177 | 3.89 | 156 | 3.37 | 135 |
| 4.92 | 197 | 4.39 | 176 | 3.87 | 155 | 3.34 | 134 |
| 4.89 | 196 | 4.37 | 175 | 3.84 | 154 | 3.32 | 133 |
| 4.87 | 195 | 4.34 | 174 | 3.82 | 153 | 3.29 | 132 |
| 4.84 | 194 | 4.32 | 173 | 3.79 | 152 | 3.27 | 131 |
| 4.82 | 193 | 4.29 | 172 | 3.77 | 151 | 3.24 | 130 |
| 4.79 | 192 | 4.27 | 171 | 3.74 | 150 | 3.22 | 129 |
| 4.77 | 191 | 4.24 | 170 | 3.72 | 149 | 3.19 | 128 |
| 4.74 | 190 | 4.22 | 169 | 3.69 | 148 | 3.17 | 127 |
| 4.72 | 189 | 4.19 | 168 | 3.67 | 147 | 3.14 | 126 |
| 4.69 | 188 | 4.17 | 167 | 3.64 | 146 | 3.12 | 125 |
| 4.67 | 187 | 4.14 | 166 | 3.62 | 145 | 3.09 | 124 |
| 4.64 | 186 | 4.12 | 165 | 3.59 | 144 | 3.07 | 123 |
| 4.62 | 185 | 4.09 | 164 | 3.57 | 143 | 3.04 | 122 |
| 4.59 | 184 | 4.07 | 163 | 3.54 | 142 | 3.02 | 121 |
| 4.57 | 183 | 4.04 | 162 | 3.52 | 141 | 3 | 120 |
| 4.54 | 182 | 4.02 | 161 | 3.49 | 140 | < 3 | 70-119 (refolding) |
| 4.52 | 181 | 4.00 | 160 | 3.47 | 139 | | |
| 4.49 | 180 | 3.97 | 159 | 3.44 | 138 | | |

The learning result is also evaluated on a two-point scale (passed/failed).

Table 2

The scale of transferring points to the national system

| According to the national system | On a 200-point scale |
|----------------------------------|------------------------|
| counted | from 120 to 200 points |
| not counted | less than 119 points |

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.

14. Methodological support

1. Working curriculum of the discipline;
2. Plans of lectures, practical classes and independent work of students;
3. Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smartboards, etc.)
4. Methodical instructions for practical classes for students;
5. Methodical materials that ensure independent work of students;
6. Test and control tasks for practical classes;

15. Recommended literature

Basic (basic)

1. Public health: a study guide / by General. ed. Gruzeva T.S. / K: Book-plus, 2021. – 296 p.
2. Zdrowie publiczne / Marian Sygit. – Warszawa: Wolters Kluwer, 2017. – 689 p..
3. Public health and behavioral economics / V. O. Kurganska, V. A. Smiyanov, O. I. Smiyanova // Herald of social hygiene and health care organizations of Ukraine. - 2019. - No. 2 (80). - P. 33-39.
4. Rational and safe nutrition as the basis of public health: a study guide / A. G. Dyachenko, V. A. Kurganskaya, V. V. Kasyanchuk and others. – Sumy: Sumy State University, 2017. – 354 p
5. Golyachenko O.M. Social medicine and the organization of health care .-Kyiv: VSV "Medicine", 2011.- 208 p.
6. Public health: a national textbook / V.F. Moskalenko, O.P. Gulchii, T.S. Gruzeva and others, ed. V.F. Moskalenko; Ministry of Health of Ukraine; O.O. Bogomolets National Medical University - 3 ed. Vinnytsia: New Book, 2013. - 560 p.
7. 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. Yavorskyi. - Vinnytsia: Nova kniga, 2012. - 200 s.
8. Oxford Textbook of Global Public Health, 6 edition. Edited by Rogers Detels, Martin Gulliford, Quarraisha Abdool Karim and Chorh Chuan Tan. - Oxford University Press, 2017. - 1728 p.

Auxiliary:

1. Methods of studying health of the population: Study guide for students of medical faculties / V.Y. Agarkov, L.V. Buteva, S.V. Hryshchenko. etc. - Donetsk: DonNMU, 2011.-106 p.
2. Experience of European countries in financing the health care sector. Lessons for Ukraine / In general ed. V.G. Chernenko and V.M. Redhead -K.: Akadempres, 2002. – 112 p.
3. Health care of Ukraine: state, problems, prospects/ L.A.Chepelevska, O.R.Sytenko, V.V. Poor and others; under the editorship of Lazoryryshyntsia. - K.: 2014. - 607 p.
4. Health care in Ukraine: organization and legislative support: monograph / A.I. Kozachenko, V.M. Pashkov, V.P. Lysak and others, according to ag. Edited by V.P. Lysak, V.M. Pashkov, I.A. Golovanova .- K.: MORION, 2014.-335 p.
5. Barrachina J. Axis II comorbidity in borderline personality disorder is influenced by sex, age, and clinical severity./ Barrachina J, Pascual JC, Ferrer M, Soler J, Rufat MJ, Andi3n O, Tiana T, Mart3n-Blanco A, Casas M , P3rez V.// Compr Psychiatry. 2011.- 22.
6. Buitelaar JK, Functional improvement and correlations with symptomatic improvement in adults with attention deficit hyperactivity disorder receiving long-acting methylphenidate./ Buitelaar JK, Casas M, Philipsen A, Kooij JJ, Ramos-Quiroga JA, Dejonckheere J, van Oene JC, Sch3uble B .// Psychol Med. 2011 .- 1:1-10.
7. The Law of Ukraine "Basics of the Legislation of Ukraine on Health Care" dated

- November 19, 1992// Bulletin of the Verkhovna Rada of Ukraine. – 1993.- No. 43.
8. Law of Ukraine On the Procedure for Reforming the Health Care System in Vinnytsia, Dnipropetrovsk, Donetsk Oblasts and the City of Kyiv // Gazette of the Verkhovna Rada of Ukraine (VVR), - 2012. - N 12-13, Article 81
 9. Resolution of the Cabinet of Ministers of Ukraine "On approval of the Procedure for conducting activities related to the circulation of narcotic drugs, psychotropic substances and precursors, and control over their circulation" dated June 3, 2009 No. 589.

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
12. [http: zakon3.rada.ua/lows](http://zakon3.rada.ua/lows)
13. [http: mozdocs.riev.ua](http://mozdocs.riev.ua)
14. [http: euro.who.inf](http://euro.who.inf)
15. www.moz.gov.ua