

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE


BLACK SEA NATIONAL UNIVERSITY
named after PETER THE GREAT

Medical Institute

Department of Hygiene, Social Medicine, Public Health and Medical Informatics

"APPROVE"

The first vice-rector

 NM Ishchenko

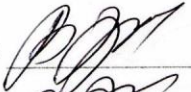
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CURRICULUM WORK PROGRAM


Social medicine, public health , history of medicine

Area of knowledge 22 "Health care"
Specialty 222 "Medicine"


Developer

Zyuzin VO 

Head of the Department of Developer

Zyuzin VO 


Guarantor of the educational program

Klymenko MO 

Director of the institute

Grishechenko GV 

Head of educational and methodical department

Shkirchak SI 

Mykolaiv - 2021

1. Description of the discipline

Characteristic	Characteristics of the discipline	
Name of discipline	Social medicine, public health , history of medicine	
Branch of knowledge	22 " Health care "	
Specialty	222 Medicine	
Specialization (if any)		
Educational program	Medicine	
Level of higher education	Master	
Discipline status	Normative	
Curriculum	I, II I, IV , V I	
Academic year	2021 - 2022	
Semester number (s)	1 th, 6 th, 7 th , 12 th	
Total number of ECTS credits / hours	8 credit and / 240 years	
Course structure:	Full-time	Correspondence form
- Lectures	- 7.5 (1st semester) 10 (6th semester) 15 (7th semester)	
- practical classes	- 7.5 (1st semester) 60 (6th semester) 30 (7th semester) 38 (12th semester)	
- hours of independent work of students	- 54	
Percentage of classroom load	61 %	
Language of instruction		
Form of intermediate control (if any)		
Form of final control	6th semester - credit 7th semester - exam 10th semester - credit 12th semester - credit	

2. Purpose, tasks and planned learning outcomes

Mastering the study discipline "Social medicine, public health " is about possession of the necessary knowledge, skills and gaining knowledge for research, analysis and evaluation of health indicators, organization, resource support to the health system, the development of positions of evidence-based medicine recommendations for the prevention and elimination of harmful effects of factors on health and to improve the organization of medical care and public health .

Learning objectives: acquisition by students of competencies, knowledge, skills and abilities for the implementation of specialized activities in the specialty:

- mastering the theoretical foundations of biostatistics;
- mastering modern principles of evidence-based medicine;
- acquaintance with methods of definition and analysis of the basic biostatistical indicators and criteria;
- mastering the methodological and theoretical foundations of the formation of statistical aggregates for their further adequate analysis;
- mastering the methods of determining, analyzing and evaluating the main indicators of population health according to certain criteria and in relation to the factors that affect it;
- mastering the patterns 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 medical care, the principles of assessing the organization and quality of various types of medical care to the population in terms of health care reform;
- formation of knowledge on the issue of examination of disability, its types, the order of organization and actions of medical workers in relation to specific situations of examination of disability;
- mastering the principles of development management decisions aimed at improving the business of health care ' I:
- mastering the basics of economic analysis of the medical institution;
- mastering the principles of analysis and assessment of financial and economic indicators of economic activity of medical institutions for the rational use of available resources;
- formation of knowledge on pricing policy, strategic and tactical planning of economic development of the medical institution;
- exploring the development of a business plan business activities in health care ' I said.

Prerequisites for studying the discipline (interdisciplinary links) . Social medicine, public health as a discipline:

a) based on an understanding of the students knowledge of the main provisions of rule eh Noah physiology hihyeny, statistics, evidence based medicine, ecology, clinical epidemiology, microbiology and Integra is a prohibitive c ymi disciplines;

b) creates a theoretical basis for students to master the organization of clinical specialties (internal medicine, surgery, obstetrics and gynecology, pediatrics, anesthesiology, etc.), which involves both the integration of teaching with basic clinical disciplines and the acquisition of in-depth knowledge of evidence-based medicine, organization and health economics, the ability to use this knowledge in the process of further training and in the professional activity of a doctor;

c) forms the methodological foundations of clinical thinking;

d) provides an opportunity to conduct a socio-medical analysis of clinical situations for further diagnosis, treatment and prevention of diseases.

Expecting learning outcomes . As a result of studying the discipline, students have:

- ability to solve common and complex specialized tasks and practical problems in professional activities in the field of health ' I, or in learning, which provides research and / or innovation and implementation is characterized by complexity and uncertainty of conditions and requirements.
- 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;
- ability to choose communication strategy, ability to work in a team, interpersonal skills;
- skills of using information and communication technologies;
- ability to abstract thinking, analysis and synthesis, ability to learn and be modernly trained;
- ability to evaluate and ensure the quality of work performed;
- certainty and persistence in terms of tasks and responsibilities;
- with the ability to act socially responsible and public consciousness.
- of usefulness to the evaluation of basic indicators of health ' I populations;
- of usefulness to assess the impact of socio-economic and biological determinants to health ' I, of trends in the context of different Dec. yn population of the risk;
- of the usefulness identify inequalities on health ' I sort of social determinants, and develop coincidences ovidni measures to reduce them;
- the ability to apply the basic concepts and concepts of evidence-based medicine and biostatistics in the planning, conduct and interpretation of research results;
- of usefulness to the organization of and Integra tion of medical care;
- of the usefulness of controls to ensure service quality health care at an appropriate level;
- of the usefulness of planning and prevention of diseases among the population, including in collaboration with public health professionals;
- of usefulness in the development and implementation of monitoring and evaluating the effectiveness of interventions and preventive diagnostic or screening programs ;
- of usefulness for the analysis of the health service ' I institutions division matches or health professionals;
- with the ability to conduct an examination of working capacity;
- of usefulness to processing state, co touch on social and medical information;
- of the usefulness of the implementation of advocacy, communication and social mobilization in public health ' I cross- x communication channels and techniques;
- of the usefulness prioritize health care ' I assess needs, develop and implement based on evidence strategy and proponuv atm scientifically based measures.

According to the requirements of the educational-professional program, students must

- know:

- assessment of the state of health ' I population and the impact of determinants, assessment of risk and the development and implementation of preventive measures aimed at preserving and strengthening health ' I, and social well-being of the population;
- assessment of the system of health ' I, establishments, departments or professional healthcare ' I; identification and elimination of negative factors influencing their work, as well as the development of measures to improve the organization and improve the activities of specialists and health care institutions ;

- be able to:

- analyze and assess the 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 health of the population (individual, family, population) in a medical institution by standard methods, assess the risk;
- identify public health priorities, conduct needs assessments, propose science-based measures and develop appropriate strategies;
- plan disease prevention measures among the population to prevent the spread of diseases .

The developed program corresponds to the educational-professional program (OPP) and is focused on the formation of competencies:

- general (GC) - GC1:

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.

- professional (PC) - PC1, 10, 14 , 17 - 20:

PC1. Patient interviewing skills.

PC10. Ability to carry out medical and evacuation measures.

PC14. Ability to carry out sanitary and hygienic and preventive measures.

PC17. Ability to conduct a performance examination.

PC18. Ability to keep medical records.

PC19. Ability to conduct epidemiological and medical-statistical studies of public health; processing of state, social, economic and medical information.

PC20. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

According to the educational-professional program, the expected **program learning outcomes (PRN)** include the skills of **PRN 2 4, 26, 27, 34, 37-40, 42 - 44:**

PLO24	<p>In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, using knowledge of a woman 's reproductive organs, adhering to the relevant ethical and legal norms, by making an informed decision, using a standard procedure:</p> <ul style="list-style-type: none">• evaluate the patient and medical criteria for the acceptability of the method of contraception;• identify Mr. Lan examination of the patient before choosing a method of contraception;• provide advice on family planning;• to select a modern method of contraception for different categories of the population.
PLO26	<p>Implement a system of anti-epidemic and preventive measures in the health care institution, its unit on the basis of data on the health of certain contingents of the population and the impact on the environment, using existing methods, within the primary health care, of:</p> <ul style="list-style-type: none">• organization of nutrition, water supply;• mode of activity and rest;• formation of a favorable production environment;• primary prevention of diseases and injuries;• vaccine prophylaxis;• prevention of bad habits;• prevention of unwanted pregnancy;• promotion of a healthy lifestyle.
PLO27	<p>Implement a system of primary prevention measures, based on data on the health of the population served and the presence of the determinants of health, in the health care facility and outside it using existing methods, within the primary health care. sanitary assistance to the population:</p> <ul style="list-style-type: none">• sanitary and educational measures to prevent the occurrence of infectious and non-infectious diseases, injuries and the promotion of a healthy lifestyle;• organization of rational nutrition, safe social and living conditions, water supply; <p>mode of activity and rest.</p>
PLO34	<p>Under the conditions of a health care institution, its subdivision:</p> <ul style="list-style-type: none">• prepare an annual report on personal production activities in ykorystovuyuchy offi ing records, in a generalized form;• keep medical records of the patient and the population (outpatient / inpatient card, medical history , individual pregnancy card, exchange card, birth history, sanatorium card, certificate of incapacity, documentation for MSEC, etc.), using standard

	technology, based on regulatory documents.
PLO37	In the conditions of a health care institution, its subdivision according to standard methods: <ul style="list-style-type: none"> • identify negative environmental factors on the basis of data from the health institution by comparing them with existing norms and standards; • analyze the health status of a certain contingent on the basis of official data by comparing it with average indicators; determine the relationship between the state of the environment and the state of health of a particular contingent on the basis of data about them; develop preventive measures based on the data on the relationship of IL state of the August edovyscha health so certain contingent.
PLO38	Carry out analysis of morbidity of the population, identifying risk groups, risk areas, time of risk, risk factors, in the conditions of the health care institution, its subdivision , using statistical and laboratory methods.
PLO39	Provo DTIS assessment of the impact of socio-economic and biological determinants of the health of the individual, the family, the population on the territory of servicing ents by standard methods and on the basis of data of epidemiological, medical and statistical research.
PLO40	In the conditions of a health institution according to standard methods on the basis of official statistical data: <ul style="list-style-type: none"> • to study the scope and effectiveness of the doctor, department, health care institution in the dynamics and when comparing them with the average static and the best in the field of activity; identify defects in activities and the reasons for their formation.
PLO42	In the conditions of the institution, health care unit according to standard methods: assess the cost of medical services; <ul style="list-style-type: none"> • justify the choice of an adequate method of financing (payment), the choice of rational forms of organization of medical services; • apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation (cost minimization, cost efficiency, cost-effectiveness).
PLO43	In the conditions of a health care institution, adhering to the relevant ethical and legal norms, by making a reasonable decision to take measures: <ul style="list-style-type: none"> • organize the work of medical staff in a team, unit, institution; to form rational medical routes of patients; • organize interaction with colleagues in your institution and in other health care institutions, subordinates and managers; • organize interaction with organizations and institutions outside the health sector.
PLO44	Apply tools to promote medical services in the market, based on the analysis of the needs of the population, in the conditions of functioning of the health care institution, its subdivision, in a competitive environment.

3. The program of the discipline

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

Program teaching her discipline is divided into 5 block along :

Block 1. History of medicine.

Block 2 . Biostatistics.

Block 3 . Public health.

Block 4. Health Organization ' me.

Block 5. Economics of Health ' I said.

Block 1. History of medicine

Topic 1. History of medicine as a science and a subject of teaching. Medicine primitive society (3 million. -V th. E .e).

History of medicine as a science and a subject of teaching. Its purpose, objectives, methods of study.

Periodization and chronology of world history. The connection of medicine with the socio-economic development of society, philosophical worldview, the level of development of grandchildren in different periods of human history.

Historical sources used for the study and reconstruction of primitive society: paleoanthropology, paleopathology, paleobotany, paleopsychology, archeology, and others. The problem of reconstruction of primitive history.

Late tribal community of livestock breeders and farmers. The transition to reproductive forms of economy. Changing the diet.

Origin of private property, classes, statehood. Patriarchy and matriarchy. The original neighborhood promenade. Expanding the scope of drugs and methods of empirical treatment. Surgical techniques. Surgical instruments (copper, bronze, iron).

Rational methods of collective treatment: the use of drugs of plant, animal and mineral origin, care for children, assistance in childbirth and trauma, stop bleeding, bloodletting, skull trepanation, amputation. Production of tools for treatment (from a stone, bones, fish scales). Development of hygienic skills: artificial housing, thermal processing of food, burial. Origin of religious beliefs (animism, totemism, fetishism, magic).

Topic 2. Medicine of the ancient world (V millennium BC - V century AD)

Medicine of the peoples of the medieval East.

Medicine in the Byzantine Empire.

Renaissance medicine. The birth of the humanistic direction.

Medical literature in the Renaissance. Popular medical manuals.

Differentiation of medicine. Formation of anatomy as a science.

Topic 3. An outstanding scientist of ancient Greece - Hippocrates. The significance of Galen's works for the development of medicine and humanity

Hygienic recommendations of Hippocrates.

Code of Hippocrates.

Oath of Hippocrates.

Hippocrates - the father of clinical medicine.

Principles of treatment according to Hippocrates.

Topic 4. World medicine of the Middle Ages of the Arab caliphs

History of the Arab Caliphates. Works of Al-Biruni (973-1048), Muhammad Al-Khorezm.

Medical schools in Bukhara, Baghdad, Damascus, Cordoba, Toledo.

The role of scientists in the history of medicine Razes and Ibi-Sina.

Topic 5. Medicine of the early and developed Middle Ages

Medicine of the peoples of the medieval East.

Medicine in the Byzantine Empire.

Medicine of the peoples of the medieval East.

Medicine in Western Europe.

Medicine of medieval Russia.

Medicine of medieval China.

Topic 6. Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD)

The people as a carrier of medical knowledge.

Folk medicine.

Topic 7. Medicine of Ukraine-Russia in the Middle Ages (IX - XVII volumes)

Providing medical care in Sich. And in the Cossack campaigns.

Assumption Stauropean Brotherhood in Lviv and its role in the development of medicine in Ukraine.

Establishment of a hospital for the sick and poor in Lviv in 1377.

The opening of a house (hospital) at the Kyiv Pechersk Lavra in 1070, where the sick were treated and the disabled were kept.

Topic 8. World medicine of modern times

Great natural-scientific discoveries of the XVIII-XIX centuries. and their importance for the development of further views of nature.

Empirical period. Epidemics of cholera, typhus, plague. The importance of the introduction of microscopic research (Anthony van Leeuwenhoek) and the creation of cell theory (Matthias Schleiden and Theodor Schwann) for the development of medical microbiology.

Experimental period. Differentiation of microbiology. L. Pasteur - the founder of scientific microbiology and immunology. The first anti-rabies stations. Pasteur Institute in Paris. Development of bacteriology. R. Koch, his experiments on the etiology of anthrax, wound infections, the discovery of the causative agents of tuberculosis and cholera.

Physiology and experimental medicine. Experimental period. R. Descartes, A. Galler, L. Galvani, F. Majandi, K. Bernard.

Introduction of clinical teaching. G. Burhaave - doctor, botanist, chemist. His teachings on the recognition and treatment of diseases. The first methods and devices of physical examination of the patient. History of thermometer creation (D. Fahrenheit, R. Reomur, A. Celsius).

Introduction of thermometry in clinical practice. Discovery of percussion (L. Auenbrugger, J. Corvizar). Discovery of direct auscultation: RT Laennek. Stethoscope opening. Introduction of percussion and auscultation methods in medical practice. Instrumental, physical and chemical methods of laboratory and functional diagnostics: endoscopy, X-ray method, Riva-Rocci apparatus for measuring blood pressure, electrocardiograph of W. Einthoven.

Topic 9. World and Ukrainian medicine in the XIX - XX centuries.

The doctrine of the integrity and unity of the organism: M.Ya. Mudrov, IE Dyadkovsky, SP Botkin., G.A. Zakhar'in, PA Zagorsky - the founder of the first domestic anatomical school. Anatomical Theater at the University of St. Vladimir. Study of physiology of separate systems and functions of an organism.

The first clinical and physiological laboratories. I.P. Pavlov - the founder of the doctrine of conditioned reflexes and higher nervous activity. Establishment of departments of pathological anatomy in Ukrainian universities. Formation of pathological physiology as a science and a subject of teaching. Ukrainian School of Pathophysiology. D. Samoilovich - the founder of domestic epidemiology, plague.

Development of surgery in Ukrainian universities. Creation of topographic (surgical) anatomy MI Pirogov, Formation of military field surgery. World priorities of Ukrainian surgery.

10. Subject Medicine and Health care ' I Ukraine and contemporary period

International cooperation in the field of medicine and health care (World Health Organization, International Organization of the Red Cross and Red Crescent, etc.).

Nobel laureates of the twentieth century in medicine and physiology.

Features of the development of medicine in Ukraine in different periods of modern history: during the formation of health care (1918-1940); during the Great Patriotic War (1941 - 1945); in the postwar period (1945-1965); during the period of developed socialism (1966 - 1990); during the independence of Ukraine (from 1991 to the present).

Topic 11. History of medicine of the region and the school

Medical exhibits in a permanent exposition of the Nikolaev regional local lore museum.

Well-known doctors of Nikolaevshchina.

Creation of zemstvo medicine of Nikolaevshchina.

Zemsky sanitary and anti-epidemic activity.

Public city medicine.

The problem of training doctors for Mykolayiv region.

Periods of formation of the medical institute.

Topic 12. International cooperation in the field of health care

The World Health Organization (WHO) is the history of creation.

History of the International Red Cross Society and

Red Crescent.

International Committee of the Red Cross.

League of Red Cross and Red Crescent Societies.

International Bureau of Public Hygiene.

Topic 13. Traditional medicine of the peoples of the world. Medicine of the peoples of the American contingent before and after the conquest

The birth of medicine on the American continent.

Totemism.

Fetishism.

Animism.

The magic of the peoples of America.

Trepanation as a method of treatment.

Training of healers.

Folk Medicine of America.

Topic 14. Nobel laureates in medicine in the early XXI century

Discoveries in the field of physiology, genetics and medicine, awarded the Nobel Prize.

Gringard P. (2000 USA) for the discovery of the role of proteins in the signaling mechanisms of the nervous system.

Banner (2002, Great Britain) for the discovery of mechanisms of genetic regulation of growth and development of organs and mechanisms of clinical death.

Mansfield P. (2003 UK) for the development of nuclear techniques - magnetic resonance scanning of internal organs.

Block 2 . Biostatistics

Theme 1. Social Medicine and Public Health ' I like science. Biostatistics a methodological basis of analysis and evaluation of health ' I am the public and health care ' I said. Social Medicine and Public Health ' I - the science that studies the laws of health ' I population and its health system. The methodology of analysis and evaluation of population health ' me. Definitions of "biostatistics", "evidence-based medicine", "clinical epidemiology". The main stages of development of biostatistics. Outstanding scientists and their contribution to the development of biostatistics. Basic principles of evidence-based medicine. Triad of evidence-based medicine. Theory and practice of evidence-based medicine. D okazova medicine rd quality of clinical trials. The concept of end results. Evidence-based medicine and the quality of medical care. Standardization of health care: clinical protocols, standards and recommendations.

Topic 2 . Methodical bases of the organization of statistical researches. Data types. Methods of collecting statistical material. Methodological bases, forms and methods of statistical observation and data collection. Accuracy of observations. Data types : qualitative and quantitative data. Use of different measurement scales: absolute, ordinal, interval, relations. Methods of collecting statistical material: direct registration, copying, surveys. Types of questionnaires, their characteristics. Marketing and polls, types of questions during an ketuvanni problems organizing surveys in public health ' me.

Topic 3. Organization and planning of statistical surveys. Theory and concepts of statistical observation, stages of its implementation. Planning statistical dos lidzhennya . The purpose and objectives of the study. Sources of statistical information. Object of research, unit of observation. Types of research by volume: selective and continuous. The concept of general and sample population. Requirements for the formation of the sample. Types of sampling. Types of research over time: one-moment, dynamic (prospective and retrospective).

Topic 4. Compilation of statistical research programs. Statistical observation program. License plate layout. Grouping of statistical data, methods, values. Types of groupings, principles of

construction of statistical groupings and classifications. Comparability of statistical groupings. The concept of multidimensional classifications. Data encryption and decryption. Program for the development and compilation of statistical material. Statistical tables, their characteristics, types, rules of construction of the table layout. Methodical bases of reading and analysis of tables.

Topic 5. Relative values. The concept of statistical indicators, their types, form of presentation. Absolute data, relative values, their practical significance. Types of relative quantities (intensive, extensive, relative intensity, ratio, clarity), methods of their calculation and methodological bases of application for data analysis. The concept and types of structure of medical and biological data, structural changes, features of their analysis.

Topic 6. Graphic methods of analysis. Graphic methods of data analysis. Types of diagrams (linear, bar, intra-bar, sector, radial, cartograms and card diagrams), the rules of their construction, the correctness of use. Modern methods of graphic image, infographics, animation of diagrams, interactive diagrams.

Topic 7. Average values and indicators of variation. Average values in clinical and epidemiological studies, their practical significance. The elements and features in a rising series. Average values: their types, calculation methods, features of use. The concept of variation, its meaning. Variability of population parameters, estimation methods. Absolute indicators of variation (amplitude, root mean square) and relative indicators of variation (coefficients of variation and determination), their estimation. Measures of variation, the concept of distribution laws, their types, characteristics. Assessment of the normality of the distribution, "jumping" options. The rule of "three sigma", its practical use.

Topic 8. Standardization method. Problems of comparing statistical indicators in inhomogeneous aggregates. Types of standardization methods: direct, indirect, reverse. Characteristics of the stages of the standardization method. Formulation of the null hypothesis. Selection and calculation of the standard. Calculation of expected numbers. Calculation of standardized indicators. Verification of the null hypothesis, evaluation of results. The practical significance of the standardization method.

Topic 9. Estimation of reliability of research results. Characteristics and analysis of statistical errors. Estimation of probability of the received results. The concept of internal and external validity. The level of significance of statistical criteria. Zero and alternative hypotheses. Hypothesis testing. Error of the 1st and 2nd kind. Typical errors at the stages of research. Random and systematic error. Average error of average and relative value, confidence interval. Assessment of the likelihood difference: t-criterion Art ' yudenta, method of calculating its assessment typical mistakes use. Paired and multiple comparisons. Criterion H ' yumena- Keylsa criterion T'yuki. Fisher's exact criterion. Features of the use of nonparametric criteria: Mann-Whitney, Kruskal-Wallis.

Topic 10. Parametric methods for estimating probability. Selective observation as a source of statistical information. Average error of average and relative magnitude, confidence interval. Estimation of probability of difference: Student's t-test, calculation method, its estimation. Features of use on small samples. Student's table.

Topic 11. Non-parametric methods of probability estimation. Substantiation of cases of use of nonparametric evaluation methods, their significance. Types of compared sets, their characteristics. Analysis and evaluation of results in related populations, sign criterion, Wilcoxon criterion. Test the statistical hypothesis for independent samples. Analysis of qualitative features. Conjugacy tables. Chi-square criterion, its evaluation and practical application.

Topic 12. Correlation-regression analysis. Study of the relationship between quantitative variables. The concept of functional and correlative called ' yazok. The strength and direction called ' connection. Types of correlation coefficients. Pearson's linear correlation coefficient, its estimation, characteristic. Non-parametric estimation methods called ' connection - rank Spearman correlation coefficient. Paired and multiple correlation coefficients. Regression analysis, regression coefficient, regression equation. Using regression analysis for prediction.

Topic 13. Time series and their analysis. Basic rules of construction and analysis of time series in the study of the dynamics of medical and biological phenomena. Levels of a number. Types of time series: simple and complex, interval and instantaneous. The main indicators of the analysis

of time series: absolute increase, growth / decrease rate, growth rate. The main techniques of processing the time series in order to determine the trend. Methods of alignment of time series: least squares; variable average, averaging on the left and right side; increase intervals. Forecasting based on extrapolation of time series.

Subject 14. Epidemiological studies in health care ' I classification. Empirical and experimental studies. The modern concept of epidemiology. Classification of epidemiological studies. Comparative characteristics of different types of research, assessment of the degree of evidence of their results. Retrospective and prospective studies. Empirical research (descriptive and analytical). Descriptive Amy demi olohiya: a description of the individual case and case series. Analytical epidemiological studies. Cohort studies and case-control studies.

Topic 15. Design of epidemiological studies: case-control, cohort, randomized clinical trials. Design of epidemiological and clinical studies. Research ethics. Types of design. Types of control. Blindness study. Neo bhidnyy sample size. About choice ' facility and units of study. Inclusion and exclusion criteria. The concept of randomization and stratification.

Topic 16. Screening tests: characteristics and basic requirements. The concept of risk factors. Screening. Evaluation of screening results. Requirements for screening tests. Sensitivity and specificity of the screening test. The relationship of sensitivity and specificity. The concept of ROC analysis. Prognostic and risk factors, their significance and possibilities of use. Determination of risk indicators in the case-control study. Absolute, relative and additional population risk: calculation and assessment methods. The concept of chances in epidemiology. Determining the odds ratio in a cohort study: calculation and evaluation methods.

Topic 17. Risk factors. Methods of calculating risk indicators and their assessment. Risk factors. Risk indicators: absolute, relative and additional population risk. Odds. Odds ratio. Methods of calculation and evaluation.

Topic 18. Screening. Methods for assessing the sensitivity and specificity of screening tests. Screening. Requirements for screening tests. Sensitivity and specificity of the screening test: calculation and evaluation methods.

Topic 19. Review of modern methods of statistical analysis (variance, multifactor, cluster). The concept of one-way analysis of variance (A NOV A) and multifactor analysis (MA NOV A). Analysis of patient survival (Kaplan-Meyer method). The concept of cluster analysis.

Topic 20. Information support of epidemiological and clinical research. Systematic reviews and meta-analysis. Medical information: its components, information retrieval problems. Base data literature, medical library. In zahalnennya results of clinical studies. Analytical reviews. The concept of metadata. Systematic reviews and meta-analysis. Cochrane cooperation: history of creation and activity.

21. Subject Medical Statistics, to analyze the role of health ' I activities of the public and health ' me. Electronic document management. Medical statistics: theoretical foundations, subject and content, tasks, sections. Principles of construction and activity of the medical and statistical service of Ukraine. Center for Medical Statistics. Information flows in the system of medical statistics. Accounting and reporting documentation. Business information and analytical department of health care ' I said. The concept of electronic document management in health care ' I said.

22. Subject Databases of Health ' I population. Organizing and conducting statistical research on public health ' her. Databases of Health ' I population (European and national database' Health ' I for all "): design, content, opportunities. Research activity in public health ' th in Ukraine and abroad.

Topic 23. The use of knowledge of biostatistics in the daily practice of the doctor. Software of statistical researches and the order of presentation of scientific works. The place and role of biostatistics in medical education and the work of a practitioner. Overview of the main packages of statistical data processing (Excel, Access, Statistics, Stata, SPSS, SAS): advantages, disadvantages, access, mastering problems. Types of scientific works (thesis, article, methodical recommendations, monograph, textbook, dissertation). The order of presentation of scientific works: design, publication, speech, presentation.

Topic 24. Basics of preparation of a scientific publication. The structure of scientific work (purpose, scope and methods, results of own research, conclusions). Features of registration of

scientific works (representation of data in tables, graphic images). Rules for making references to sources of information, bibliography.

Topic 25. Final control.

Block 3 . Public Health ' I

26. *Subject G ro m adske health ' I, functions and services.* Public Health ' I like science and subject tutors data. Basic terms and definitions, history of the system of public health ' me. The main operational functions of public health ' me. Key Village alkali thunder dskoho health ' me. Modern development of the public health ' I am in Ukraine and abroad. Infrastructure public health ' me.

27. *Subject surveillance and assessment of health ' I and welfare of the population.* Disease surveillance system . Monitoring the incidence and prevalence of diseases. Registers of infectious and non-infectious diseases. Monitoring of disease indicators and health ' I mothers and children, mental health ' I, social care ' me. Registers of ecologically conditioned diseases, occupational diseases. Injury surveillance. Diagnosing health ' i community, detection , etc. ohalyn, inequalities in health ' her, for planning purposes.

28. *Subject Health ' I Population: key determinants.* Targeted approaches to defining the concept of 'health ' I ": general philosophical, individual theoretical, practical individual, population. Health ' I like conditional population statistical concepts. Methods of studying health ' me. Indicators of health ' I population: demographic (birth rate, mortality, life expectancy); physical development; morbidity; disability. Leading groups of factors influencing the health of the population: the level and way of life of people, the state of the environment, biological factors, availability and quality of medical care. Features health ' I different age-sex and professional groups. Public Health Strategy ' I have to preserve health ' me.

Topic 29. 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 influencing fertility. Current trends and regional features of birth rate in Ukraine and the world. Total sm er ton ist, its leading causes in different regions, individual countries and Ukraine, statevovikovi and territorial characteristics. Infant mortality (infant mortality). The value of the indicator for the assessment of health ' I population, the level of social and economic prosperity and social development. Leading causes of infant mortality. Average life expectancy, definition. Methods for determining the indicator, its dynamics in different regions of the world, individual countries and in Ukraine.

Topic 30 . Methods of studying and assessing the main demographic indicators of natural population movement. Analysis of the demographic situation. Documents used to study the natural movement of the population. The order of birth registration in Ukraine. The essence of the concepts of "live birth", "stillbirth", "fetal death". Methods for determining and estimating general and special fertility rates. Total mortality. Procedure for registration of deaths in Ukraine. Methods of studying mortality, determination of general and special indicators, their significance and evaluation. The structure of causes of death. Natural population growth. Population changes. Mechanical and natural movement of the population. Depopulation. Analysis of regional features and dynamics of demographic indicators. Assessment of the demographic situation.

Topic 31. Analysis of the population by age, sex, place of residence. The importance of studying the age structure of the population. Type of age structure of the population (progressive, regressive, stationary) and its changes. "Age Pyramid". Gender disparity: causes and consequences. Urbanization of the population as a socio-economic problem.

Topic 32. Aging population. Analysis of indicators of coolant and demographic load. Problems we surf ' related to the aging population. The average life expectancy of the population, including men and women in Ukraine and the world, its dynamics . Demographic index the species of the first load. Labor potential of the country.

Topic 33. Life as a value. Attitude to death and dying as a moral problem. Formation of attitude to life as a human value. Psychological and spiritual support in the pursuit of life, the definition of death as a natural process in old age or at work. Ensuring a dignified end to earthly life. M oral and ethical aspects related to natural death and euthanasia.

Topic 34. Methods of studying and assessing infant mortality rates. Procedure for registration of infant (infant) mortality. Methods for determining the indicators of general, neonatal, early neonatal, late neonatal, postneonatal infant mortality. Estimation of the ratio of infant mortality and neonatal mortality. Perinatal mortality. The leading causes of infant death are at different ages in the first year of life. The main groups of factors influencing the formation of infant mortality rates (biological, environmental, medical and organizational, lifestyle).

35. Subject Methodology of study and estimation of factors that influence health ' I population. Identification Classification Exposure risk factors that affect health ' me. Methodological approaches to examine spare the factors that determine the level of health ' I population and its separate contingents . Features of studying the influence of factors: socio-economic, socio-biological, ecological and climatic, medical and organizational. Application of biostatistics methods (derivatives and averages, standardization method, correlation-regression analysis, parametric and non-parametric assessment of the reliability of research results, score, rating).

Topic 36. Morbidity of the population as a medical and social problem. The concept of morbidity, the purpose of its study, features in Ukraine and the world. Medical and social significance of morbidity as a leading cause of temporary and permanent disability, mortality. The impact of disease on population needs to provide medical care for health ' I future generations. The economic costs fl ' related with the disease, including with the incidence of socially significant and dangerous diseases. Methods of studying morbidity, the possibility of applying certain methods, their advantages and disadvantages. Factors influencing the completeness of morbidity data 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 health ' I population, its medical and social importance.

Topic 37. Methods of study and evaluation of general morbidity.

Study of morbidity according to the appeals for medical care. Methods for determining indicators of primary morbidity and prevalence of diseases, their assessment. Dynamics of indicators of general and primary morbidity, regional features.

Topic 38. Methods of studying and assessing the incidence of the most important socially significant diseases. Diseases of the circulatory system, oncological, neuropsychiatric diseases, diabetes, tuberculosis, HIV / AIDS, trauma, alcoholism, drug addiction and substance abuse as medical and social problems. Leading factors influencing the prevalence of diseases. Dynamics of key indicators. Injury as a medical and social problem, types of injuries, case accounting, dynamics of indicators, age and gender characteristics in the regions of the world and in Ukraine.

39. Subject Methodology of study and evaluation of morbidity with temporary loss of capacity. Leaflet as a source of information for the study of morbidity with temporary disability. Indicators: number of cases and days of disability per 100 employees, average case duration. In-depth study of the morbidity of workers depending on length of service, profession, working conditions.

Topic 40. Methodological foundations of the study of the burden of disease. The value of the results for a system of public health ' me. Determination of the list of diseases, organization of constant monitoring. A set of indicators (DALE, NAL E) that characterize the global burden of disease: methods of calculation and evaluation. The value of the results of research to the disease burden of the public health ' me. Improving health ' I'm the least socially protected population. Measures to reduce morbidity and mortality from the most common diseases in Ukraine and Europe.

Topic 41. Medical and social aspects of disability. Methods of calculation and analysis of disability indicators. Disability as an indicator of health ' I population. Dysfunction of the body, leading to disability. Disability groups. Causes of disability, classes of diseases that determine the main causes of disability. Indicators of disability: general disability (contingents of disabled people), primary disability (disability). The structure of the causes of general and primary disability. Injury as a cause of disability of children and adults. Disability among children and adults. Regional features and dynamics of disability indicators.

Subject 42. Comprehensive assessment of health ' I population. Indicators of health ' I population. The main sources of information in the study of health ' I population. Criteria and group

health ' me. Comprehensive assessment of individual health ' me. Quality of life assessment. Comprehensive assessment of health ' I population. Integrated performance comprehensive assessment of health ' I population, rate of resilience of the population; human development index. Performance evaluation system health ' I Survey WHO (Info Summary Measures of Population Health) : life expectancy, adjusted for disability - DALE (disability-adjusted life expectancy); life expectancy, adjusted for health ' I - AT L E (health -adjusted life expectancy).

Topic 43. Analysis of indicators of physical development. Characteristics of physical development as an indicator of health ' I population. Definition of "physical development", its genetic and social conditioning. Biological development and morphofunctional development. Methods of assessing physical development. Regional features and dynamics of indicators of physical development.

Subject 44. Provide strategic leadership for the benefit of health ' I wellbeing. Strategic leadership: definitions, key provisions. Types of strategic management in the interests of health ' me. 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 services public health ' I'm planning policy and monitor its implementation.

Subject 45. The methodology of analyzing the causes of social inequality on health ' I and its protection. Obstacles to ensure the necessary conditions for maintaining personal health ' me. Social inequality as a cause of unsatisfactory access to health care and social support. Analysis of the causes of social inequalities in health ' I and its protection. Ways to improve the state of health ' I'm all segments of the population.

Topic 46. Environmental Public Health ' I said. Ensuring the protection of health ' I population, including Environmental safety, labor, food and so on . Environmental public health. Components of the living environment of people: natural environment (environment), social environment (society) and man-made environment (domestic and industrial). The main sources of threat to health ' I'm an individual or community. Protecting the human environment. Creating a "comfort zone" for a full life. The importance of intersectoral cooperation and international cooperation for the protection of the human environment.

Topic 47. Public health emergencies. Bioterrorism.

Global threats to international health ' th in the XXI century. Emergencies in the field of public health ' I, the effects of climate change, epidemics, mass destruction chemicals, radiation disaster. International security in the field of public health ' me. The role of WHO in the organization of notification and rapid response in emergencies. The concept of international health ' I, actual problems of international health ' I have the example of the European region. Bioterrorism - a global threat to international health ' th. Biological weapons. The strategy of the public health ' I have to reduce the risks of biological weapons and their negative consequences.

Topic 48. Stress and conflict. Mechanisms to protect people from stress. Stress and conflict as a cause of non-communicable diseases. Psychohygiene as a basis for prevention.

Theme 49. Ethical and legal aspects of interventions in health care ' I said. Development of reproductive medicine. Artificial insemination, surrogacy, gamete donation: moral and ethical aspects. The role of reproductive medicine in solving the problem of low birth rate. Moral, ethical and legal aspects of transplantation.

Subject 50. Prevention and intersectoral cooperation in the system of public health ' me. Prevention in the system of public health ' I, Population, group, individual. Primary, secondary and tertiary prevention. Promotion of health ' I, as a preventive direction of health care ' I said. International programs to ensure prevention activities health service ' i. Targeted prevention programs to combat the most socially significant diseases: coronary heart disease, hypertension , diabetes, tuberculosis, malignant neoplasms. The role of intersectoral cooperation in improving the efficiency and effectiveness of preventive measures.

Topic 51. Screening programs for early detection of diseases and risk factors.

Screening as a preventive technology. Early detection screening programs diseases and risk factors, their use.

Subject 52. Information and roses ' yasnyuvalna activities (advocacy) as part frequent district and health prevention. Informing the public, those who take the decisions of politicians on existing and

potential threats to health ' I have problems with health poreby preventive measures. Art and technology information, influence and motivate people, institutions audiences on important issues determinants of health ' me. Objectives and content of the centers of public health ' I, their business units, interaction with other health care facilities ' me. Development of preventive strategies for the protection and strengthening of health ' I reduce the negative impact on the state health determinants ' I population. Prevention programs and strategies for disease prevention.

Subject 53. Promotion of Health ' I said. Types, forms and methods. Methods and means of medical and hygiene training and education of the population, their features various facilities at Ho Ro us zdo rov ' I said. Definitions "promotion of health " I ", " healthy lifestyle ", " prevention ". Types of prevention. The value of a healthy lifestyle for the preservation and strengthening of health ' I population. Leading lifestyle factors, which influence the state of health ' I population. Directions for forming a healthy lifestyle . Development of questionnaires for the study of factors affecting health status ' I population. Drawing up a lecture plan.

Subject 54. Communication and social mobilization in the interests of health ' me. Press Releases and Communications ' link to the media. The value of communication in terms of preserving and strengthening health ' me. Forms of communication. Communication channels. Value-called ' bonds to the public and the media. Problems and possible errors. Press release on public health ' st - important form of communicating health information to the general public: the rules of preparation and use.

Subject 55. Computerization of public health ' me. Medical information systems in the world and in Ukraine. Information technology in the global health care ' I said. Medical information systems: storage of information, fast access to information, mutual exchange of information, statistical analysis of consolidated data, reduction of staff working time and reduction of errors. Terminological standards and rubricators. Comprehensive automation of medical institutions. Electronic document management. Electronic patient card.

56. Subject Visualization and effective presentation of data on health ' me. Dissemination and use of results. Effective presentation of data on health ' me. Traditional forms, data representation in the form of diagrams and tables. Visa Ali tion data using modern technologies infographics, animation, interaction. Forms of presentation : posters, leaflets, booklets, presentations, movies.

What ma 57. Final control.

Block 4. Organization of health care

Topic 1. The health care system.

Definition of concepts : "health care system". Goals, values, functions, principles, conditions of successful functioning of health care systems. Types of health care systems, their characteristics, advantages and disadvantages. Historical stages of development of health care systems. Financing and staffing of health care systems.

Theme 2. Reforming Health ' I Ukraine.

Health care reform: definition of the term, driving forces. Directions and conditions of successful reform of the medical sphere. Model of the health care system of Ukraine: main characteristics and problems. Strategic documents that define ways to reform the domestic health care system, stages, measures. Reforming the provision of services, financing, management, training in the national health care system.

Topic 3. Organization of primary health care.

The essence of the concept of "primary care" (PMD). Principles of organization of PMD on the basis of family medicine. The role of the family doctor / general practitioner in meeting the medical needs of urban and rural populations. Models of family doctor work, their essence, problems of choosing specific models. Organizational models of transition from the precinct-territorial system of medical support of the population to family medicine, possibilities and expediency of different models. Reforming primary health care in Ukraine.

Topic 4. Organization of outpatient (specialized and highly specialized) medical care.

Classification of types of medical care by content and degree of complexity. Contents of secondary (specialized) and tertiary (highly specialized) medical care. Institutions where outpatient secondary and tertiary care is provided. Specialist, functions, qualifications. Medical categories. Stages of outpatient care. Features of the organization of outpatient specialized and highly specialized medical care for the rural population. Reforming outpatient care.

Topic 5. Organization of inpatient care.

Contents of secondary (specialized) and tertiary (highly specialized, high-tech, highly qualified) inpatient care. Institutions providing inpatient care. Reforming hospital care. Hospital district: the principle of creation and characteristics of institutions. Structure and functions of hospitals. Features of providing inpatient care to the rural population. "Youth-Friendly Clinic" and "Child-Friendly Hospital" are new types of hospitals with a special status. Clinics of research institutes, their role in providing tertiary care. New organizational forms of medical care for certain groups of the population - HIV-infected, tuberculosis patients, the elderly, the elderly, etc.

Topic 6. Medical and social care of the elderly.

History of gerontology and geriatrics. Age classification of the population. Medico-social significance of population aging. The impact of population aging on the demographic burden, morbidity and the need for medical care. Features of the state of health of the elderly, methods of determining and evaluating indicators. The system of organization of geriatric care in Ukraine (outpatient clinics, inpatient inpatient facilities). The need for geriatric care, tasks and prospects for its development. Geriatrician: functions and tasks. Geriatric education. Interaction of geriatric care institutions with family medicine structures.

Topic 7. Palliative and hospice care.

Palliative care - the need and security of the population. Basic principles of palliative care. Forms of palliative care. Hospices: characteristics of structure and activity.

Topic 8. Organization and content of the institutions of maternity and childhood protection.

Maternity and childhood protection system. Reproductive health, the dynamics of its main indicators. Characteristics of children's health. The importance of socio-economic, socio-psychological, medical and social measures aimed at improving the health of women and children. Medical and preventive institutions for obstetric and gynecological care, features of their formation in urban and rural areas; organization and content. Perinatal center. Women's consultation. Maternity hospital. Stages of medical care for children. Comprehensive assessment of children's health. Institutions that provide medical care to children, their structure and functions. The main sections of the work of a pediatrician, family doctor. Healthy baby's office. Individual preparation of children for entering school and preschool. Infectious morbidity of children and organization of preventive vaccinations. The state of pediatric immunoprophylaxis in Ukraine. Organization of specialized medical care for children. Organization of medical care in preschool institutions, schools. Orphanages, the state of health of their contingent.

Topic 9. Analysis of the emergency (ambulance) service.

Emergency medical care: system, principles, tasks. Reforming the emergency medical service. Stages and routing of emergency medical care. Service performance indicators. The value of the emergency medical service (EMC), its institutions. Emergency and disaster medicine centers. Ambulance hospital. Structure, staff, tasks and main functions. Tasks of the ambulance station (department) and its functions. Emergency medical services. Organization of EMD in rural areas. Interaction of EMD service with various medical institutions. Accounting documents of SHMD stations, definition and analysis of indicators of their activity.

10. The theme of mental health ' me.

Mental health, definition. Awareness of mental health in society and overcoming stigma. The main causes of mental health disorders. Indicators of morbidity, disability and mortality due to mental disorders. Organization of mental health care at the level of primary health care, preventive and rehabilitation measures. Administration, interagency coordination and intersectoral cooperation in the field of mental health.

Topic 11. Methods of conducting expert assessments of the quality of medical care.

Basic concepts and terms of quality of medical care. Components of quality: structural quality; quality of technologies; quality of results. Methods of quality assessment. Requirements for methods: suitability for use in relation to different stages and types of medical care, objectivity, the ability to quantify, the correct reflection of the essence of medical activity. Quality standards of medical care for clinical and statistical groups, nosological forms. Medical technology standards. Application of clinical protocols. Medical and economic standards. Intermediate and long-term

indicators of health care quality. The importance of licensing and accreditation of medical institutions to ensure the proper quality of medical care. Types of control over medical activities. Organization of expert assessment of the activities of medical institutions, their departments and medical staff. Methods for determining the level of treatment quality, models of end results, integrated efficiency ratio.

Topic 12. Analysis of the factors influencing the activity of health care ' I said.

Factors influencing the efficiency of health care institutions: controlled and uncontrolled factors. Interaction of different health care institutions. Stages and continuity in providing medical care to the population. The value of medical and statistical information in determining the factors influencing the activities of medical institutions. The use of statistical methods (probability assessment, correlation analysis, standardization method) in the analysis of health care facilities and determining the impact of factors. Basic approaches to developing measures to improve health care.

Topic 13. Organization of medical examination of disability.

Tasks of attending physicians during the examination of temporary disability. Medical Advisory Commission (MAC): functions, composition, organization of work. The content, purpose and procedure for filling in the accounting documents used in the examination of temporary incapacity for work. The value of the certificate of incapacity for work as an accounting, legal and financial document. Determining the tactics of various officials of treatment and prevention facilities in relation to specific types and cases of temporary disability. Registration of sick leaves for certain types and cases of temporary incapacity. Organization of examination of permanent disability. Medical and social expert commissions (MSEC), their types (by administrative-territorial basis, by profiles). MSEC functions. Content, purpose and procedure for filling in the main documents of permanent disability, which are used in the examination. Defining and evaluating MSEC tactics to determine the cause and groups of disability in its individual types.

Subject 14. Management of health protection ' me. Methods of making managerial decisions. HR.

Management as a science: laws, principles, methods. School of Management. Current development trends. System, situational management. Factors affecting the efficiency of management of health ' me. Features of the management process in the health care system at the sectoral, local and organizational levels in modern conditions. The role of the leader in ensuring the efficiency of health care facilities. Management decision: definition, stages of implementation, advantages and disadvantages of different methods of its adoption. Determining the type of management decision by content. Defining the style of management decision making. Features of the implementation of management decisions: taking into account the socio-psychological strata of the team.

Subject 15. Legal basis of health ' me. Medical Insurance.

The right to health care as an integral part of social rights. The system of legal support of health care in Ukraine. Areas of law with which there are relations in the implementation of the right to health care. Regulatory legislation of Ukraine on health care. Reflection of health care issues in the codes of Ukraine (civil, commercial, etc.). The purpose and objectives of health insurance and medical insurance. Principles, organizational and legal conditions and elements of insurance medicine. Types of health insurance: compulsory and voluntary. Insurance medicine in Ukraine: history and modernity. Subjects of insurance: the insured, the insured, the insurer, the provider of medical services. Object of insurance - insurance risk to the health of the insured. Risk for the insurer regarding probable payments for the provision of medical services to the insured. Health insurance program. Insurance policy. Insurance rates.

Topic 16. Electronic Health ' I said.

Electronic health system. Providing health information, resources and services using electronic means. Electronic registers of health care institutions, doctors. Electronic declarations. Electronic recipes. Development of telemedicine.

Topic 17. Final control.

Block 5. Economics of Health ' I

Topic 18. Health care institution as a business entity. Fundamentals of entrepreneurial activity.

Health is the most important human need, individual and social value. Health economics: subject, purpose, tasks. Health care institution as a business entity. Enterprise: features, classification, legal basis of functioning. The essence of entrepreneurship. Its importance in terms of health care reform. Business associations and voluntary associations. Organizational and legal forms of entrepreneurship. Conditions for doing business. Entrepreneurial idea and the necessary knowledge for its formation.

Theme 19. Features of formation of market relations in health care ' I and marketing activities of medical institutions.

The economic essence of market relations in the field of health care. Features of functioning of health care institutions in the conditions of market relations. Market mechanism and its influence on the formation of patient needs. Medical services market. Characteristic features of "medical service". Competition and its significance for the medical services market. Marketing activities in the field of health care, origin, consequences and prospects.

Topic 20. Methods of rational use of resource potential of the medical enterprise.

Classification of resources in the field of health care. Classification of medical staff. Features of remuneration of health care providers. Evaluation of the effectiveness of the use of fixed assets of medical institutions. Depreciation methods. The essence and types of value of fixed assets.

Subject 21. The system of financing health care ' I said. Economic evaluation of the effectiveness of investment projects.

The essence and importance of financial resources in health care. Comparison of models of organization of financial support of the health care system. Assessment of sources of health care funding. Medical insurance, voluntary and compulsory medical insurance, methods of payment for medical care. Evaluation of the effectiveness of financial investments.

Topic 22. Methods of pricing and price controls in health care ' I said.

The economic essence of the pricing process and its features in the field of health care. Stages of pricing and their essential characteristics. Cost classification. Formation of the cost of medical services. Pricing of medical services. Pricing policy.

Topic 23. Economic analysis and methods of economic evaluation in the field of health care.

The essence and significance of economic analysis for the health care system, medical enterprise. The economic essence of pharmacoeconomic analysis. Methods of economic evaluation as a tool for the rational use of industry resources: "cost minimization", "cost-effectiveness", "cost-benefit", "cost-utility". Determination and analysis of economic efficiency of health care institutions. Study of economic losses in case of temporary disability caused by morbidity and injuries. Economic effect and economic efficiency. Direct costs and indirect losses related to morbidity and disability of the population.

Subject 24. Modern methods of economic analysis in health care ' I said.

Evaluation of the effectiveness of the use of drugs according to the methodology of frequency analysis. Evaluation of the effectiveness of the use of drugs according to the methodology of VEN-analysis. Evaluation of the effectiveness of the use of drugs according to the methodology of ABC analysis.

Topic 25. Methods of financial analysis of economic activity of a medical institution.

The essence of financial analysis in health care. Analysis of the financial condition of the medical enterprise. Determining the main indicators of the effectiveness of financial activities of medical production enterprises in order to make management decisions.

Topic 26. Final control.

The structure of the discipline

№ s /	Name the topics	Number of hours	
			including:

n		total	lectures	practical training	individual work
Block 1. History of medicine					
1	History of medicine as a science and a subject of teaching. Medicine of the primitive communal system (3 million - V thousand BC)	3	-	1	2
2	Medicine of the ancient world (V millennium BC - V century AD)	4	1	1	2
3	An outstanding scientist of ancient Greece - Hippocrates. The value of Galen's work for the development of medicine and humanity	2	-	-	2
4	World medicine of the Middle Ages of the Arab caliphs	4	1	1	2
5	Medicine of the early and advanced Middle Ages	4	1	1	2
6	Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD)	2.5	0.5	-	2
7	Medicine of Ukraine-Rus during the Middle Ages (IX - XVII volumes)	3.5	0.5	1	2
8	Modern world medicine	5	2	1	2
9	World and Ukrainian medicine in the XIX - XX centuries.	4, 5	1.5	1	2
10	Medicine and health care in Ukraine and the modern period	2, 5	-	0.5	2
11	History of medicine of the region and educational institution	2	-	-	2
12	International cooperation in the field of health care	2	-	-	2
13	Traditional medicine of the peoples of the world. Medicine of the peoples of the American contingent before and after the conquest	3	-	-	3
14	Nobel laureates in medicine in the early XXI century	3	-	-	3
Total hours per unit		45	7.5	7.5	30
Block 2 . Biostatistics					
1	Social Medicine and Public Health ' I like science. Biostatistics a methodological basis of analysis and evaluation of health ' I am the public and health care.	1	1	-	-
2	Methodical bases of the organization of statistical researches. Data types. Methods of collecting statistical material.	1	1	-	-
3	Organization and planning of statistical surveys.	4	-	2	2

4	Compilation of statistical research programs.	4	-	2	2
5	Relative values.	4	-	2	2
6	Graphic methods of analysis.	4	-	2	2
7	Average values and indicators of variation.	4	-	2	2
8	Standardization method.	4	-	2	2
9	Estimation of reliability of research results. Characteristics and analysis of statistical errors.	1	1	-	-
10	Parametric methods of probability estimation.	4	-	2	2
11	Nonparametric methods of probability estimation.	4	-	2	2
12	Correlation-regression analysis.	4	-	2	2
13	Time series and their analysis.	4	-	2	2
14	Epidemiological studies in health care ' I classification. Empirical and experimental studies.	1	1	-	-
15	Design of epidemiological studies: case-control, cohort, randomized clinical trials.	2	-	2	-
16	Screening tests: characteristics and basic requirements. The concept of risk factors.	1	1	-	-
17	Risk factors. Methods of calculating risk indicators and their assessment.	2	-	2	-
18	Screening. Methods for assessing the sensitivity and specificity of screening tests.	2	-	2	-
19	Review of modern methods of statistical analysis (variance, multifactor, cluster).	1	1	-	-
20	Information support of epidemiological and clinical research. Systematic reviews and meta-analysis.	1	1	-	-
21	Medical statistics, the role in the analysis of public health and the health care system. Electronic document management.	1	1	-	-
22	Databases on public health. Organization and conduct of statistical surveys in public health.	1	1	-	-
23	The use of knowledge of biostatistics in the daily practice of the doctor. Software of statistical researches and the order of presentation of scientific works.	1	1	-	-
24	Basics of preparation of a scientific publication.	2	-	2	-
25	Final control	2	-	2	-
	Total hours per unit	60	10	30	20
Block 3 . Public Health ' I					
26	Public health ' I, functions and services.	2	2	-	-
27	Surveillance and assessment of health ' I and welfare of the population.	4	2	2	-
28	Health ' I Population: key determinants.	2	2	-	-
29	Medical and social problems of demographic processes.	2	2	-	-
30	Methods of studying and assessing the main	6	2	4	-

	demographic indicators of natural population movement. Analysis of the demographic situation.				
31	Analysis of the population by age, sex, place of residence.	1	-	-	1
32	Population aging. Analysis of indicators of coolant and demographic load.	1	-	-	1
33	Life as a value. Attitude to death and dying as a moral problem.	1	-	-	1
34	Methods of studying and assessing infant mortality rates.	4	-	2	-
35	Methodology of study and evaluation of factors affecting health ' I population.	4	-	2	-
36	Morbidity of the population as a medical and social problem.	2	2	-	-
37	Methods of study and evaluation of overall morbidity.	4	-	2	1
38	Methods of studying and assessing the incidence of the most important socially significant diseases.	2	-	2	-
39	Methodology of study and evaluation of morbidity with temporary loss of capacity.	3	2	-	1
40	Methodological bases of research of burden of diseases. The value of the results for a system of public health ' me.	2	-	2	-
41	Medical and social aspects of disability. Methods of calculation and analysis of disability indicators.	4	-	2	-
42	Comprehensive assessment of health ' I population.	4	-	2	-
43	Analysis of indicators of physical development.	1	-	-	1
44	Providing strategic leadership for the benefit of health ' I wellbeing.	1	-	-	1
45	Methodology The analysis of the causes of social inequality on health ' I and its protection.	2	-	2	-
46	Environmental public health ' me. Ensuring the protection of health ' I population, including safety of the environment, labor, food, etc.	1	-	-	1
47	Public health emergencies. Bioterrorism.	1	-	-	1
48	Stress and conflict. Mechanisms to protect people from stress.	1	-	-	1
49	Ethical and legal aspects of interventions in health care ' I said.	1	-	-	1
50	Prevention and intersectoral cooperation in the public health system.	1	1	-	-
51	Screening programs for early detection of diseases and risk factors.	1	-	-	1
52	Information and explanatory activity (advocacy) as an integral part of medical prevention.	2	-	2	-

53	Health promotion. Types, forms and methods.	3	-	2	1
54	Communication and social mobilization in the interests of health ' me. Press Releases and Communications ' link to the media.	3	-	2	1
55	Computerization of public health ' me. Medical information systems in the world and in Ukraine.	1	-	-	1
56	Visualization and effective presentation of data on health ' me. Dissemination and use of results.	1	-	-	1
57	Final control	2	-	2	-
	Total hours per unit	60	15	30	15

Block 4. Organization of health care

1	System Health ' I said.	2	-	-	2
2	Reforming healthcare ' I Ukraine.	2	-	-	2
3	Organization of primary health care.	2	-	2	-
4	Organization of outpatient (specialized and highly specialized) medical care for the population.	2	-	2	-
5	Organization of inpatient medical care for the population.	2	-	2	-
6	Medical and social support of the elderly population.	2	-	-	2
7	Palliative and hospice care.	2	-	-	2
8	Organization and content of work of institutions of maternity and childhood protection system.	2	-	2	-
9	Analysis of the activities of the emergency (ambulance) service.	2	-	2	-
10	Public mental health ' me.	2	-	-	2
11	Methods of conducting expert assessments of the quality of medical care to the population.	2	-	2	-
12	Analysis of the factors influencing the activity of health care ' I said.	2	-	-	2
13	Organization of medical examination of disability.	4	-	2	2
14	Management of health protection ' me. Methods of making managerial decisions. HR.	4	-	2	2
15	Legal basis of health ' me. Medical Insurance.	2	-	-	2
16	Electronic health ' me.	2	-	-	2
17	Final control	2	-	2	-
	Total hours per unit	38	-	18	20

Block 5. Economics of Health ' I

1	Health care institution as a business entity. Fundamentals of entrepreneurial activity.	4	-	2	2
2	Features of formation of market relations in	4	-	2	2

	health care ' I and marketing activities of medical institutions.				
3	Methods of rational use of resource potential of the medical enterprise.	4	-	2	2
4	System of financing health care ' I said. Economic evaluation of the effectiveness of investment projects.	4	-	2	2
5	Methods of pricing and price controls in health care ' I said.	4	-	2	2
6	Economic analysis and methods of economic evaluation in the field of health care.	4	-	2	2
7	Modern methods of economic analysis in health care ' I said.	4	-	2	2
8	Methods of conducting financial analysis of economic activity of a medical institution.	5	-	2	3
9	Final control	4	-	4	-
Total hours per unit		37		20	17

4. The content of the discipline 4.1. Lecture plan

№ s / n	Lesson topic / plan	Number of hours
Block 1. History of medicine		
1	Topic 1. Medicine of the ancient world (V millennium BC - V century AD) 1) Medicine of the peoples of the medieval East. 2) Medicine in the Byzantine Empire. 3) Medicine of the Renaissance. The birth of the humanistic direction. 4) Medical literature in the Renaissance. Popular medical manuals. 5) Differentiation of medicine. Formation of anatomy as a science.	1
2	Topic 2. World medicine of the Middle Ages of the Arab caliphs. Medicine of the early and advanced Middle Ages 1) History of the Arab Caliphates. Works of Al-Biruni (973-1048), Muhammad Al-Khorezmi. 2) Medical schools in Bukhara, Baghdad, Damascus, Cordoba, Toledo. 3) The role of scientists in the history of medicine Razes and Ibi-Sin.	2
3	Topic 3. Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD). Medicine of Ukraine-Rus during the Middle Ages (IX - XVII volumes) 1) The people as a carrier of medical knowledge. Folk medicine. 2) Providing medical care in Sich. And in the Cossack campaigns. 3) Assumption Stauropean fraternity in Lviv and its role in the development of medicine in Ukraine. 4) Establishment of a hospital for the sick and poor in Lviv in 1377. 5) Opening in 1070 at the Kiev Pechersk Lavra house (hospital), where patients were treated and disabled.	1
4	Topic 4. World medicine of modern times 1) The great scientific discoveries of the eighteenth and nineteenth centuries. and their importance for the development of further views on nature. 2) The empirical period.	2

	3) Experimental period. 4) Introduction of clinical teaching and thermometry in clinical practice. 5) Introduction of percussion and auscultation methods in medical practice.	
5	Topic 5. World and Ukrainian medicine in the XIX - XX centuries. 1) The doctrine of the integrity and unity of the organism. 2) The study of the physiology of individual systems and functions of the organism. The first clinical and physiological laboratories. 3) Creation of departments of pathological anatomy in Ukrainian universities. Formation of pathological physiology as a science and a subject of teaching. Ukrainian School of Pathophysiology. 4) Development of surgery in Ukrainian universities. Creation of topographic (surgical) anatomy MI Pirogov, Formation of military field surgery. World priorities of Ukrainian surgery.	1.5
Together		7.5
Block 2 . Biostatistics		
1	Social Medicine and Public Health ' I like science. Biostatistics a methodological basis of analysis and evaluation of health ' I am the public and health care . 1) Social medicine and public health - a science that studies the patterns of public health and its protection system. Methodology of population health analysis and assessment. Definitions of "biostatistics", "evidence-based medicine", "clinical epidemiology". 2) The main stages of development of biostatistics. Outstanding scientists and their contribution to the development of biostatistics. Basic principles of evidence-based medicine. Triad of evidence-based medicine. Theory and practice of evidence-based medicine. Evidence-based medicine is the quality of clinical trials. The concept of end results. 3) Evidence-based medicine and the quality of medical care. Standardization of health care: clinical protocols, standards and recommendations.	1
2	Methodical bases of the organization of statistical researches. Data types. Methods of collecting statistical material. 1) Methodological bases, forms and methods of statistical observation and data collection. Accuracy of observations. Data types: qualitative and quantitative data. 2) The use of different measurement scales: absolute, ordinal, interval, relations. 3) Methods of collecting statistical material: direct registration, copying, surveys. Types of questionnaires, their characteristics. Marketing and sociological surveys, types of questions in the survey, problems of organizing surveys in health care.	1
3	Estimation of reliability of research results. Characteristics and analysis of statistical errors. 1) Assessment of the probability of the obtained results. The concept of internal and external validity. The level of significance of statistical criteria. 2) Zero and alternative hypotheses. Hypothesis testing. Error of the 1st and 2nd kind. Typical errors at the stages of research. Random and systematic error. Average error of average and relative value, confidence interval. Estimation of the probability of difference: Student's t-test, calculation method, its estimation, typical errors of use. Paired and multiple comparisons. Newman-Kayles criterion, Tukey's criterion. Fisher's exact criterion. Features of the use of nonparametric criteria: Mann-Whitney, Kruskala-Wallis.	1
4	Epidemiological studies in health care ' I classification. Empirical and experimental studies.	1

	<p>1) The modern concept of epidemiology. Classification of epidemiological studies.</p> <p>2) Comparative characteristics of different types of research, assessment of the degree of evidence of their results. Retrospective and prospective studies. Empirical research (descriptive and analytical).</p> <p>3) Descriptive epidemiology: a description of a single case and a series of cases. Analytical epidemiological studies. Cohort studies and case-control studies.</p>	
5	<p>Screening tests: characteristics and basic requirements. The concept of risk factors.</p> <p>1) Screening. Evaluation of screening results. Requirements for screening tests. Sensitivity and specificity of the screening test.</p> <p>2) The relationship of sensitivity and specificity. The concept of ROC analysis. Prognostic and risk factors, their significance and possibilities of use.</p> <p>3) Determination of risk indicators in the study "case-control". Absolute, relative and additional population risk: calculation and assessment methods. The concept of chances in epidemiology. Determining the odds ratio in a cohort study: calculation and evaluation methods.</p>	1
6	<p>Review of modern methods of statistical analysis (variance, multifactor, cluster).</p> <p>1) The concept of one-way analysis of variance (ANOVA) and multifactor analysis (MANOVA).</p> <p>2) Analysis of patient survival (Kaplan-Meyer method). The concept of cluster analysis.</p>	1
7	<p>Information support of epidemiological and clinical research. Systematic reviews and meta-analysis.</p> <p>1) Medical information: its components, problems of information retrieval. Literature databases, medical libraries.</p> <p>2) Generalization of the results of clinical trials. Analytical reviews.</p> <p>3) The concept of metadata. Systematic reviews and meta-analysis. Cochrane cooperation: history of creation and activity.</p>	1
8	<p>Medical statistics, the role in the analysis of public health and the health care system. Electronic document management.</p> <p>1) Medical statistics: theoretical foundations, subject and content, tasks, sections.</p> <p>2) Principles of construction and operation of the medical and statistical service of Ukraine. Center for Medical Statistics. Information flows in the system of medical statistics.</p> <p>3) Accounting and reporting documentation. Activities of information and analytical departments of health care institutions. The concept of electronic document management in health care.</p>	1
9	<p>Databases on public health. Organization and conduct of statistical surveys in public health.</p> <p>1) Databases on public health (European and domestic databases "Health for All"): design, content, capabilities.</p> <p>2) Research activities in public health in Ukraine and abroad.</p>	1
10	<p>The use of knowledge of biostatistics in the daily practice of the doctor. Software of statistical researches and the order of presentation of scientific works.</p> <p>1) The place and role of biostatistics in medical education and the work of a practitioner.</p> <p>2) Overview of the main packages of statistical data processing (Excel, Access, Statistics, Stata, SPSS, SAS): advantages, disadvantages, access, problems of mastering.</p> <p>3) Types of scientific works (thesis, article, methodical recommendations,</p>	1

	monograph, textbook, dissertation). The order of presentation of scientific works: design, publication, speech, presentation.	
Total hours		10
Block 3 . Public Health ' I		
1	<p>Public health ' I, functions and services. Health ' I Population: key determinants. Surveillance and assessment of health ' I and welfare of the population .</p> <p>1) Public health as a science and subject of teaching. Basic terms and definitions, the history of the public health system.</p> <p>2) The main operational functions of public health. Basic services thunder dskoho health.</p> <p>3) Modern development of the public health system in Ukraine and the world.</p> <p>4) Public health infrastructure.</p>	6
2	<p>Medical and social problems of demographic processes. Methods of studying and evaluating the main demographic indicators.</p> <p>1) 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 influencing fertility. Current trends and regional features of birth rate in Ukraine and the world.</p> <p>2) Total mortality, its leading causes in different regions, individual countries and in Ukraine, gender, age and territorial features. Infant mortality (infant mortality).</p> <p>3) The value of the indicator to assess the health of the population, the level of socio-economic well-being and development of society. Leading causes of infant mortality. Average life expectancy, definition. Methods for determining the indicator, its dynamics in different regions of the world, individual countries and in Ukraine.</p>	4
3	<p>Morbidity of the population as a medical and social problem.</p> <p>1) The concept of morbidity, the purpose of its study, features 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 the disease, including with the incidence of socially significant and dangerous diseases.</p> <p>2) Methods of studying morbidity, the possibility of using certain methods, their advantages and disadvantages. Factors influencing the completeness of morbidity data depending on the methods of its study.</p> <p>3) International statistical classification of diseases, injuries and causes of death, the 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 public health, its medical and social significance.</p>	2
4	<p>Medico-social problems of morbidity with temporary and permanent disability .</p> <p>1) Leaflet as a source of information for the study of morbidity with temporary disability.</p> <p>2) Indicators: the number of cases and days of disability per 100 employees, the average duration of the case. In-depth study of the morbidity of workers depending on length of service, profession, working conditions.</p>	2
5	<p>Prevention and intersectoral cooperation in the public health system.</p> <p>1) Prevention in the public health system: population, group, individual. Primary, secondary and tertiary prevention. Promotion of health ' I, as a preventive</p>	1

	direction of health care ' I said. 2) International Program for providing prevention activities health service ' i. Targeted prevention programs to combat the most socially significant diseases: coronary heart disease, hypertension , diabetes, tuberculosis, malignant neoplasms. The role of intersectoral cooperation in improving the efficiency and effectiveness of preventive measures.	
Total hours		1 5
Total hours for e ysts and Pliny		2 5

4.2. The plan of practical classes of the discipline

№ s / n	Lesson topic / plan	Number of hours
Block 1. History of medicine		
1	Topic 1. History of medicine as a science and a subject of teaching. Medicine of the primitive communal system (3 million -V thousand BC). Medicine of the ancient world (V thousand BC - V century AD)	2
2	Topic 2. World medicine of the Middle Ages of the Arab caliphs. Medicine of the early and advanced Middle Ages	2
3	Topic 3. Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD). Medicine of Ukraine-Rus during the Middle Ages (IX - XVII volumes)	1
4	Topic 4. World medicine of modern times	1
5	Topic 5. World and Ukrainian medicine in the XIX - XX centuries. Medicine and health care in Ukraine in the modern period	1.5
Total hours		7.5
Block 2 . Biostatistics		
1	Organization and planning of statistical surveys. Theory and concept of statistical observation, stages of its implementation. Statistical research planning. The purpose and objectives of the study. Sources of statistical information. Object of research, unit of observation. Types of research by volume: selective and continuous. The concept of general and sample population. Requirements for the formation of the sample. Types of sampling. Types of research over time: one-moment, dynamic (prospective and retrospective).	2
2	Compilation of statistical research programs. Statistical observation program. License plate layout. Grouping of statistical data, methods, values. Types of groupings, principles of construction of statistical groupings and classifications. Comparability of statistical groupings. The concept of multidimensional classifications. Data encryption and encryption. Program for the development and compilation of statistical material. Statistical tables, their characteristics, types, rules of construction of the table layout. Methodical bases of reading and analysis of tables.	2
3	Relative values. The concept of statistical indicators, their types, form of presentation. Absolute data, relative values, their practical significance. Types of relative quantities (intensive, extensive, relative intensity, ratio, clarity), methods of their calculation and methodological bases of application for data analysis. The concept and types of structure of medical and biological data, structural changes, features of their analysis.	2
4	Graphic methods of analysis. Graphic methods of data analysis. Types of diagrams (linear, bar, intra-bar,	2

	sector, radial, cartograms and card diagrams), the rules of their construction, the correctness of use. Modern methods of graphic image, infographics, animation of diagrams, interactive diagrams.	
5	<p>Average values and indicators of variation.</p> <p>Average values in clinical and epidemiological studies, their practical significance. Elements and characteristics of variation series. Average values: their types, calculation methods, features of use. The concept of variation, its meaning. Variability of population parameters, estimation methods. Absolute indicators of variation (amplitude, root mean square) and relative indicators of variation (coefficients of variation and determination), their estimation. Measures of variation, the concept of distribution laws, their types, characteristics. Assessment of the normality of the distribution, "jumping" options. The rule of "three sigma", its practical use.</p>	2
6	<p>Standardization method.</p> <p>Problems of comparing statistical indicators in inhomogeneous aggregates. Types of standardization methods: direct, indirect, reverse. Characteristics of the stages of the standardization method. Formulation of the null hypothesis. Selection and calculation of the standard. Calculation of expected numbers. Calculation of standardized indicators. Verification of the null hypothesis, evaluation of results. The practical significance of the standardization method.</p>	2
7	<p>Parametric methods of probability estimation.</p> <p>Selective observation as a source of statistical information. Average error of average and relative magnitude, confidence interval. Estimation of probability of difference: Student's t-test, calculation method, its estimation. Features of use on small samples. Student's table.</p>	2
8	<p>Nonparametric methods of probability estimation.</p> <p>Substantiation of cases of use of nonparametric evaluation methods, their significance. Types of compared sets, their characteristics. Analysis and evaluation of results in related populations, sign criterion, Wilcoxon criterion. Test the statistical hypothesis for independent samples. Analysis of qualitative features. Conjugacy tables. Chi-square criterion, its evaluation and practical application.</p>	2
9	<p>Correlation-regression analysis.</p> <p>Study of the relationship between quantitative variables. The concept of functional and correlation. Strength and direction of communication. Types of correlation coefficients. Pearson's linear correlation coefficient, its estimation, characteristic. Nonparametric methods for estimating the relationship - Spearman's rank correlation coefficient. Paired and multiple correlation coefficients. Regression analysis, regression coefficient, regression equation. Using regression analysis for prediction.</p>	2
10	<p>Time series and their analysis.</p> <p>Basic rules of construction and analysis of time series in the study of the dynamics of medical and biological phenomena. Levels of a number. Types of time series: simple and complex, interval and instantaneous. The main indicators of the analysis of time series: absolute increase, growth / decrease rate, growth rate. The main techniques of processing the time series in order to determine the trend. Methods of alignment of time series: least squares; variable average, averaging on the left and right side; increase intervals. Forecasting based on extrapolation of time series.</p>	2
11	<p>Design of epidemiological studies: case-control, cohort, randomized clinical trials.</p> <p>Design of epidemiological and clinical studies. Research ethics. Types of design. Types of control. Blindness study. The required sample size. Choice of object and research units. Inclusion and exclusion criteria. The concept of randomization and stratification.</p>	2

12	Risk factors. Methods of calculating risk indicators and their assessment. Risk factors. Risk indicators: absolute, relative and additional population risk. Odds. Odds ratio. Methods of calculation and evaluation.	2
13	Screening. Methods for assessing the sensitivity and specificity of screening tests. Screening. Requirements for screening tests. Sensitivity and specificity of the screening test: calculation and evaluation methods.	2
14	Basics of preparation of a scientific publication. The structure of scientific work (purpose, scope and methods, results of own research, conclusions). Features of registration of scientific works (representation of data in tables, graphic images). Rules for making references to sources of information, bibliography.	2
15	Final control	2
Total hours		30
Block 3 . Public Health ' I		
16	Surveillance and assessment of health ' I and welfare of the population. Disease surveillance system . Monitoring the incidence and prevalence of diseases. Registers of infectious and non-infectious diseases. Monitoring of diseases and indicators of maternal and child health, mental health, social health. Registers of ecologically caused diseases, occupational diseases. Injury surveillance. Diagnosing the health of local communities, identifying gaps, health inequalities, needs for action planning.	2
17	Methods of studying and assessing the main demographic indicators of natural population movement. Analysis of the demographic situation. Documents used to study the natural movement of the population. The order of birth registration in Ukraine. The essence of the concepts of "live birth", "stillbirth", "fetal death". Methods for determining and estimating general and special fertility rates. Total mortality. Procedure for registration of deaths in Ukraine. Methods of studying mortality, determination of general and special indicators, their significance and evaluation. The structure of causes of death. Natural population growth. Population changes. Mechanical and natural movement of the population. Depopulation. Analysis of regional features and dynamics of demographic indicators. Assessment of the demographic situation.	4
18	Methods of studying and assessing infant mortality rates. Procedure for registration of infant (infant) mortality. Methods for determining the indicators of general, neonatal, early neonatal, late neonatal, postneonatal infant mortality. Estimation of the ratio of infant mortality and neonatal mortality. Perinatal mortality. Leading causes of infant mortality at different ages of the first year of life. The main groups of factors influencing the formation of infant mortality rates (biological, environmental, medical and organizational, lifestyle).	2
19	Methodology of study and evaluation of factors affecting health ' I population. Classification of risk factors that affect health. Methodical approaches to the study of factors that determine the levels of health of the population and its individual contingents. Features of studying the influence of factors: socio-economic, socio-biological, ecological and climatic, medical and organizational. Application of biostatistics methods (derivatives and averages, standardization method, correlation-regression analysis, parametric and non-parametric assessment of the reliability of research results, score, rating).	2
20	Methods of study and evaluation of overall morbidity. Study of morbidity according to appeals for medical care. Methods for determining indicators of primary morbidity and prevalence of diseases, their assessment. Dynamics of indicators of general and primary morbidity, regional features.	2

21	<p>Methods of studying and assessing the incidence of the most important socially significant diseases.</p> <p>Diseases of the circulatory system, oncological, neuropsychiatric diseases, diabetes, tuberculosis, HIV / AIDS, trauma, alcoholism, drug addiction and substance abuse as medical and social problems. Leading factors influencing the prevalence of diseases. Dynamics of key indicators. Injury as a medical and social problem, types of injuries, case accounting, dynamics of indicators, age and gender characteristics in the regions of the world and in Ukraine.</p>	2
22	<p>Methodological bases of research of burden of diseases. The value of the results for a system of public health ' me.</p> <p>Determination of the list of diseases, organization of constant monitoring. A set of indicators (DALE, NALE) that characterize the global burden of disease: methods of calculation and evaluation. The value of the results of research to the disease burden of the public health ' me. Improving health ' I most socially vulnerable segments of the population. Measures to reduce morbidity and mortality from the most common diseases in Ukraine and Europe.</p>	2
23	<p>Medical and social aspects of disability. Methods of calculation and analysis of disability indicators.</p> <p>Disability as an indicator of population health. Dysfunction of the body, leading to disability. Disability groups. Causes of disability, classes of diseases that determine the main causes of disability. Indicators of disability: general disability (contingents of disabled people), primary disability (disability). The structure of the causes of general and primary disability. Injuries as a cause of disability of children and adults. Disability among children and adults. Regional features and dynamics of disability indicators.</p>	2
24	<p>Comprehensive assessment of health ' I population.</p> <p>Population health indicators. The main sources of information in the study of public health. Criteria and health groups. Comprehensive assessment of individual health. Assessment of quality of life. Comprehensive assessment of public health. Integrated performance comprehensive assessment of health ' I population, rate of resilience of the population; human development index. Performance evaluation system health WHO (Info Summary Measures of Population Health) : life expectancy, adjusted for disability - DALE (disability-adjusted life expectancy); life expectancy, adjusted for health ' I - AT L E (health -adjusted life expectancy).</p>	2
25	<p>Methodology The analysis of the causes of social inequality on health ' I and its protection.</p> <p>Obstacles to ensure the necessary conditions for maintaining personal health ' me. Social inequality as a cause of unsatisfactory access to health 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 segments of the population.</p>	2
26	<p>Information and explanatory activity (advocacy) as an integral part of medical prevention.</p> <p>Informing society, decision- makers, politicians about existing and potential health threats, health problems, needs for preventive measures. Art and technology information, influence and motivate people, institutions audiences on important issues determinants of health ' me. Objectives and content of the centers of public health ' I, their business units, interaction with other health care facilities ' me. Development of preventive strategies for the protection and strengthening of health ' I reduce the negative impact on the state health determinants ' I population. Prevention programs and strategies for disease prevention.</p>	2
27	<p>Health promotion. Types, forms and methods.</p> <p>Methods and means of medical and hygiene training and education of the population, their features different institutions Health ' I said. Definitions "promotion of health " I ", " healthy lifestyle ", " prevention ". Types of prevention. The value of a healthy</p>	2

	lifestyle for the preservation and strengthening of health ' I population. Leading lifestyle factors, which influence the state of health ' I population. Directions for forming a healthy lifestyle . Development of questionnaires for the study of factors affecting health status ' I population. Drawing up a lecture plan.	
28	Communication and social mobilization in the interests of health ' me. Press Releases and Communications ' link to the media. The value of communication in terms of preserving and strengthening health ' me. Forms of communication. Communication channels. Value-called ' bonds to the public and the media. Problems and possible errors. Press release on public health ' family - an important form of communicating health information to the general public: the rules of preparation and use.	2
29	Final control	2
Total hours		3 0
Block 4. Organization of health care ' I		
1	Organization of primary health care.	2
2	Organization of outpatient (specialized and highly specialized) medical care for the population.	2
3	Organization of inpatient medical care for the population.	2
4	Organization and content of work of institutions of maternity and childhood protection system.	2
5	Analysis of the activities of the emergency (ambulance) service.	2
6	Methods of conducting expert assessments of the quality of medical care to the population.	2
7	Organization of medical examination of disability.	2
8	Management of health protection ' me. Methods of making managerial decisions. HR.	2
9	Final control of work on the unit	2
Total hours		1 8
Block 5. Economics of Health ' I		
1	Health care institution as a business entity. Fundamentals of entrepreneurial activity.	2
2	Features of formation of market relations in health care ' I and marketing activities of medical institutions.	2
3	Methods of rational use of resource potential of the medical enterprise.	2
4	System of financing health care ' I said. Economic evaluation of the effectiveness of investment projects.	2
5	Methods of pricing and price controls in health care ' I said.	2
6	Economic analysis and methods of economic evaluation in the field of health care.	2
7	Modern methods of economic analysis in health care ' I said.	2
8	Methods of conducting financial analysis of economic activity of a medical institution.	2
9	The result is a control work on the block	4
Total hours		20

4.3. Tasks for independent work

№ s / n	Name topics	Number of hours
Block 1. History of medicine		
1	History of medicine as a science and a subject of teaching. Medicine of the primitive communal system (3 million -V thousand BC).	2

2	Medicine of the ancient world (V millennium BC - V century AD)	2
3	An outstanding scientist of ancient Greece - Hippocrates. The value of Galen's work for the development of medicine and humanity	2
4	World medicine of the Middle Ages of the Arab caliphs.	2
5	Medicine of the early and advanced Middle Ages	2
6	Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD)	2
7	Medicine of Ukraine-Rus during the Middle Ages (IX - XVII volumes)	2
8	Modern world medicine	2
9	World and Ukrainian medicine in the XIX - XX centuries.	2
10	Medicine and health care in Ukraine and the modern period	2
11	History of medicine of the region and educational institution	2
12	International cooperation in the field of health care	3
13	Traditional medicine of the peoples of the world. Medicine of the peoples of the American contingent before and after the conquest	3
14	Nobel laureates in medicine in the early XXI century	2
Total hours		30
Block 2 . Biostatistics *		
	Preparation for practical classes - theoretical preparation for the development of practical skills.	12
	Execution of VTS on the selected topic.	4
	Preparation for the final control.	4
Total hours		20
Block 3 . Public Health ' I		
1	Analysis of the population by age, sex, place of residence	1
2	Population aging. Analysis of indicators of coolant and demographic load.	1
3	Life as a value. Attitude to death and dying as a moral problem.	1
4	Methods of study and assessment of morbidity with temporary disability.	1
5	Analysis of indicators of physical development.	1
6	Providing strategic leadership for the benefit of health ' I wellbeing.	1
7	Environmental public health ' me. Ensuring the protection of health ' I population, including safety of the environment, labor, food, etc.	1
8	Emergencies in the field of public health ' me. Bioterrorism.	1
9	Stress and conflict. Mechanisms to protect people from stress.	1
10	Ethical and legal aspects of interventions in health care ' I said.	1
11	Screening programs for early detection of diseases and risk factors.	1
12	Computerization of public health ' me. Medical information systems in the world and in Ukraine.	1
13	Visualization and effective presentation of data on health ' me. Dissemination and use of results.	1
	Execution of VTS on the selected topic.	2
	Preparation for the final control.	2
Total hours		15
Block 4. Organization of health care		

1	System Health ' I said.	2
2	Reforming healthcare ' I Ukraine.	2
3	Medical and social support of the elderly population.	2
4	Palliative and hospice care.	2
5	Mental health care.	2
6	Analysis of factors influencing the activities of health care institutions.	2
7	Legal principles of health care. Medical Insurance.	2
8	E-health.	2
9	Department of Health ' I said. HR.	2
10	Organization of medical examination of disability	2
Total hours		20
Block 5. Economics of Health ' I		
1	Preparation for practical classes (theoretical training, development of practical skills)	17
Total hours		17

***Note.** Under this program a block in 1. "Biostatistics" not supposed independent students master specific topics.

Individual tasks

An individual situational task is provided for each topic of the practical lesson and for the topic of independent work.

Tasks for independent work

Block 1. History of medicine

Topics of abstracts

1. Reforming the health care system of Ukraine at the present stage.
2. International cooperation in the field of medicine and health care (World Health Organization, International Organization of the Red Cross and Red Crescent, etc.).
3. Nobel laureates of the twentieth century in medicine and physiology.
4. Features of the development of medicine in Ukraine in different periods of modern history: during the formation of health care (1918-1940); during the Great Patriotic War (1941-1945); in the postwar period (1945-1965); during the period of developed socialism (1966 - 1990); during the independence of Ukraine (from 1991 to the present).
5. Development of surgery in Ukrainian universities. Creation of topographic (surgical) anatomy MI Pie. Formation of military field surgery. World priorities of Ukrainian surgery.
6. The doctrine of the integrity and unity of the organism: M.Ya. Mudrov, IE Dyadkovsky, SP Botkin, G.A. Zakhar'in, P.A. Zagorsky is the founder of the first domestic anatomical school. Anatomical Theater at the University of St. Vladimir.
7. L. Pasteur - the founder of scientific microbiology and immunology. The first anti-rabies stations. Pasteur Institute in Paris. Development of bacteriology. R. Koch, his experiments on the etiology of anthrax, wound infections, the discovery of pathogens of tuberculosis and cholera.
8. The first clinical and physiological laboratories. I.P. Pavlov - the founder of the doctrine of conditioned reflexes and higher nervous activity. Establishment of departments of pathological anatomy in Ukrainian universities. Formation of pathological physiology as a science and a subject of teaching. Ukrainian School of Pathophysiology. D. Samoilovich - the founder of domestic epidemiology, chumologist.
9. History of development of medicine in the city of Nikolaev.
10. The value of research (Anthony van Leeuwenhoek) and the creation of cell theory (Matthias Schleiden and Theodor Schwann) for the development of medical microbiology

11. Physiology and experimental medicine. Experimental period. R. Descartes, A. Galler, L. Galvani, F. Majandi, K. Bernard.
12. Medicine of Ukraine-Russia during the Middle Ages (IX - XVII vols.). Providing medical care in Sich. And in the Cossack campaigns. Assumption Stauropean Brotherhood in Lviv and its role in the development of medicine in Ukraine.
13. Medicine of the Renaissance The birth of the humanities. Medical literature in the Renaissance. Popular medical manuals. Differentiation of medicine. Formation of anatomy as a science.
14. History of the Arab Caliphates. Works of Al-Biruni (973-1048), Muhammad Al-Khorezmi. Medical schools in Bukhara, Baghdad, Damascus, Cordoba, Toledo.
15. Medicine of the Renaissance The birth of the humanities. Medical literature in the Renaissance. Popular medical manuals.
16. Abu Bakr ar-Razi (Rhazes, 850-923, Baghdad); his works "Comprehensive Book" and "On Smallpox and Measles". Abu al-Qasim az-Zahrawi (Abulcasis, ca. 936-1013, Córdoba); his "Treatise on Surgery and Instruments." The doctrine of eye diseases. The idea of blood circulation: Ibn an-Nafis (XIII century, Damascus).
17. Abu Ali ibn Sina (Avisenna, 980-1037). His work "Canon of Medicine" in 5 volumes ("Al Qanun fi t-Tibb", 1020).
18. I.II. Pavlov - the founder of the doctrine of conditioned reflexes and higher nervous activity. Nobel Prize (1904). School IP Pavlova. "Letter to the Youth" (1935).
19. Health care systems (public, insurance, private). Modern healthcare concept.
20. Discovery of new drugs, development of methods for diagnosis, treatment and prevention of diseases.
21. History of awarding the Nobel Prizes in medicine, physiology and related sciences .
22. The idea of public health: J.P. Frank (Austria, Russia) and his work "General Medical Police System" (1779-1819). Development of public hygiene in England: J. Simon.

The abstract is written on one side of the paper format A - 4 "by hand", the volume of 10 - 14 sheets with the indication of primary sources (not less than three), without taking into account the title page , which indicates:

- name of the educational institution
- name of the department
- topic of the abstract
- performer
- teacher

The maximum score is 5 points abstract, for the conditions and that the student met the requirements for registration abstract. There is an abstract plan. The topic and issues of the plan are fully disclosed, written clearly and logically. The abstract is written in the state language.

Examples of test tasks to be solved in class

Task №1

1. Modern medicine is:

- A. The system of scientific knowledge about health ' I
- B. development of natural sciences
- C. Quality of medicines
- D . Development of philosophy
- E. Development of technology

2. The history of medicine is divided into:

- A. Social
- B. Economic
- C. General, special
- D . Ancient
- E. Public

3. The development of pottery gave:

- A. Cook and store food
- B. Prepare medicine
- C. To deal with cattle
- D . Observe the action of herbs
- E. Take medication

4. Hospital Medicine of India:

- A. Galen
- B. Hippocrates
- S. Charaka, Sushruta
- D . Aristotle
- E . Dioxoride

Block 2 . Biostatistics

To perform the CPC proposed a theme: " Implementation of evidence-based medicine in clinical practice (for example, a separate clinical discipline)" or invited to perform small research any medicine (anatomy, therapy, hygiene, pharmacology, etc.) and presentation I did results in the form of VTS.

Block 3 . Public Health ' I

*Individual tasks for VTS **

1. Maternal mortality as an important indicator of population health: main causes and trends in Ukraine.
2. Modern characteristics of infectious morbidity of the population of Ukraine: main trends and problems. HIV and AIDS in Ukraine: current situation, ways to overcome problems.
3. Public health emergencies. Bioterrorism.
4. Analysis of the dynamics of tuberculosis in Ukraine: the main trends and problems.
5. Modern characteristics of the incidence of diseases of the population of Ukraine in the circulatory system: causes and consequences of current trends.
6. Modern characteristics of the incidence of malignant neoplasms in Ukraine: causes and consequences of current 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 the incidence of diabetes in Ukraine: the main trends and problems.
9. Analysis of the dynamics of injury indicators in Ukraine and around the world. Features and types of trauma to children and adults.
10. The state of health of the population affected by the Chernobyl accident - current trends.
11. Prevention and intersectoral cooperation in the public health system.
12. Characteristics of human lifestyle and its components. Influence of lifestyle, behavioral risk factors on the health of the population of Ukraine.
13. Characteristics of the environment and its components. The impact of environmental factors on the health of the population of Ukraine. Environmental public health.
14. Health promotion. Information and explanatory activity (advocacy) as an integral part of medical prevention.
15. April 7 - World Health Day: the slogan of the current year, events held to celebrate World Health Day in the world and in Ukraine.

***Note.** Execution of VTS involves the preparation of a presentation on this topic with a mandatory speech (defense of work) in a practical lesson.

Block 4. Organization of health care

1. *Specialized dispensaries in Ukraine: activity and prospects of development.*
2. Perinatal centers are a new form of maternal and child health care. Causes and consequences of implementation.
3. The problem of infertility in Ukraine. Reproductive health centers. The problem of in vitro fertilization.
4. Orphanages as institutions of medical and social protection: problems and prospects of development.

5. Specialized institutions for the elderly (geriatric service): present and prospects.
6. Development of palliative care in Ukraine. Hospices: problems and prospects for development.
7. Development of insurance medicine in Ukraine. History and modernity.
8. Sanatorium and resort service in Ukraine: a network of institutions, their activities and prospects for development.
9. Financing the health care system in Ukraine and abroad: problems, reforms.
10. Medical education in Ukraine. The system of advanced training of doctors: institutions, certification, categories.
11. Staffing of the health care system in Ukraine.
12. The pharmaceutical industry in Ukraine: a network of institutions, activities and prospects for development.
13. E-health. Structure, resources, services.
14. Medical science in Ukraine: network of research institutions, scientific degrees in medicine, National Academy of Medical Sciences of Ukraine.
15. Criteria for medical and social efficiency of medical institutions in different countries (on the example of a particular country).

Block 5. Economics of Health ' I

Doing independent work involves students preparing a business plan for a private or municipal medical enterprise.

4.4. Ensuring the educational process

1. Verbal methods: lecture, conversation, story, explanation, work with literature.
2. Visual methods: illustration, demonstration, observation.
3. Practical methods: situational tasks, independent work, research work.
4. Interactive methods: discussion, work in small groups, brainstorming, case method, business game.
5. Credit and examination tickets.

5. Final control

Block 1. History of medicine

List of control questions of final control

1. History of medicine as a science and a subject of teaching.
2. Purpose, tasks, methods of studying the history of medicine.
3. Periodization and chronology of world history.
4. Historical sources used to study the history of medicine.
5. The problem of reconstruction of primitive history.
6. The field of drugs and methods of empirical treatment. Surgical technique. Surgical instructions.
7. Rational methods of collective treatment.
8. Manufacture of tools for treatment.
9. Development of hygienic skills.
10. The birth of religious beliefs.
11. Medicine of the peoples of the medieval East.
12. Medicine in the Byzantine Empire.
13. Medicine of the Renaissance.
14. Medical literature in the Renaissance.
15. Differentiation of medicine. Formation of anatomy as a science.
16. Medicine of the Arab Caliphates. Works by Al-Boruni, Muhammad Al Horizmi.
17. Medical schools in Bukhara, Baghdad, Damascus, Cordoba, Toledo.
18. The role of scientists in the history of medicine. Rosette of Ibn Sina.
19. Medicine of the peoples of the Medieval East.
20. Medicine in the Byzantine Empire.
21. Medicine of the peoples of medieval Western Europe.

22. Medicine of medieval Russia.
23. Medicine of medieval China.
24. Medicine in the Ukrainian lands in ancient times (IV millennium BC - VIII century AD).
25. Medicine of Ukraine - Russia during the Middle Ages (IX - XVIII centuries.).
26. The people as a carrier of medical knowledge. Folk medicine.
27. Providing medical care in the Sich and in the Cossack campaigns.
28. Assumption Stauropean Brotherhood in Lviv.
29. Large natural science publications of the eighteenth century. - XIX century. and their importance for the development of medicine.
30. Empirical period. Epidemics of cholera, typhus, plague.
31. The importance of introducing microscopic studies and creating a clinical theory for the development of medical microbiology.
32. Experimental period. Differentiation of microbiology.
33. Physiology and experimental medicine.
34. Introduction of clinical teaching.
35. Introduction of thermometry in clinical practice.
36. Discovery of percussion and auscultation.
37. Introduction of laboratory and functional diagnostics.
38. World and Ukrainian medicine in the XIX - XX centuries.
39. The first clinical and physiological laboratories.
40. Formation of pathological anatomy and pathological physiology.
41. D. Samoilovich - the founder of domestic epidemiology.
42. Development of surgery in Ukrainian universities.
43. Creating a topographic anatomy.
44. Formation of military field surgery.
45. International cooperation in the field of medicine and health care.
46. Nobel laureates of the twentieth century in medicine and physiology.
47. Features of the development of medicine in Ukraine during the formation of health care (1918 - 1990).
48. Development of medicine in Ukraine during the Great Patriotic War (1941-1945)
49. Medicine of Ukraine in the postwar period (1945-1965)
50. Medicine of Ukraine in the period of advanced socialism (1966 - 1990)
51. Medicine of independent Ukraine (1991 - present).

The final control is carried out in the form of a differentiated test with an assessment of the student's answer to the question of the test ticket. The ticket has four questions with a maximum weight of 20 points each. The maximum sum of points of differentiated credit is 80, the minimum is 50.

"0" version of the test ticket

Petro Mohyla Black Sea National University

Level of higher education - master

Field of knowledge: 22 "Health care"

Specialty 222 "Medicine"

Academic discipline

" Social medicine, public health, history of medicine "

Option № 0

1. History of medicine as a science and a subject of teaching. Its purpose, objectives, method of study. (Maximum number of points - 20).
2. Renaissance medicine. (Maximum number of points - 20).
3. Development of surgery in ancient Ukrainian universities. (Maximum number of points - 20).

4. Features of the development of medicine in Ukraine in different periods of modern history. (Maximum number of points - 20).

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The head of the department is professor Zyuzin VO

Examiner Professor Zyuzin VO

Block 2 . Biostatistics

List of control questions of final control

1. Theory and concept of statistical observation, stages of its implementation.
2. Design of clinical and epidemiological studies.
3. Sources of statistical information.
4. Grouping of statistical data.
5. Statistical tables, their characteristics, types, rules of construction.
6. Selective observation as a source of statistical information.
7. Types of statistical observation of time and completeness of accounting.
8. Methods of collecting statistical material.
9. Absolute data. Types of relative values.
10. Graphic methods of data analysis. Types of diagrams, rules for their construction.
11. Average values in clinical and epidemiological studies, their types, values, calculation methods.
12. The concept of variation, its meaning. Variability of population parameters, estimation methods.
13. Estimation of reliability of research results. Parametric criterion for assessing Student's probability.
14. Substantiation of "cases of using non-parametric methods of probability assessment. The concept of connected and independent sets.
15. Functional and correlation. Types of correlation coefficients.
16. Regression analysis, regression coefficient, regression equation.
17. Methods of standardization, stages of the direct method of standardization.
18. Basic rules of construction and analysis of time series. Methods of time series alignment, the concept of extrapolation and interpolation.
19. The concept of risk in epidemiological studies. The main risk factors that affect health.
20. Risk indicators, odds ratio indicator, calculation and evaluation methods.
21. Basic principles and provisions of clinical epidemiology. Hierarchy of evidence of clinical trials.
22. The concept of the null hypothesis. Test the statistical hypothesis. Errors of the first and second kind.
23. Screening. The main characteristics of screening tests. Specificity and sensitivity of the screening test.
24. Empirical and experimental epidemiological studies. The "gold standard" of research.
25. Evidence-based medicine. History, main provisions, principles, areas of application.
26. Data types. The concept of measurement scales.
27. The concept of systematic reviews and meta-analysis.
28. Subject and tasks of medical statistics. Organization of the service of medical statistics in Ukraine. Electronic document management.
29. Tasks of the information-analytical department of the health care institution. The concept of accounting and reporting documentation.
30. Basics of preparation of a scientific publication.

Block 3 . Public health

Final control

1. Public health, functions and services.
2. Targeted approaches to the definition of "health". Population health indicators. The burden of disease.
3. Leading groups of factors influencing public health, their classification. Surveillance and assessment 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, key indicators,
5. Birth rate, indicators in Ukraine. Factors influencing the birth rate.
6. Mortality. Methods of calculating general and special indicators. Features and causes of mortality in different population groups. Infant mortality. Leading reasons, factors influencing its formation. Medical and social aspects of reducing infant mortality.
7. Average life expectancy (LLL), the relationship with the Human Development Index (HDI). Trends in the dynamics of coolant in different regions of the world, individual countries and in Ukraine. Taking into account the impact of the "burden of disease" on the coolant.
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, features among the rural and urban population.
 10. Occupational morbidity: expediency 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, the main indicators.
 14. The concept of types of population pathology. Their characteristics. Leading non-communicable diseases: diseases of the circulatory system, malignant neoplasms, diabetes, chronic manifestations of lung disease, their medical and social significance.
 15. Leading risk factors for non-communicable diseases: tobacco use, alcohol, low physical activity, malnutrition, metabolic risk factors.
 16. Tuberculosis as a medical and social problem.
 17. HIV / AIDS as a medical and social problem.
 18. Injury - medical and social significance.
 19. Physical development. Criteria for studying biological and morpho-functional development. Current trends in physical development.
 20. Disability: the main causes of disability, disability groups, the factors that affect it. Definition and assessment of disability indicators.
 21. International health. Bioterrorism.
 22. Inequality in public health and protection. Detection and reduction.
 23. Environmental public health. Ensuring the protection of public health, including safe environment, labor, food.
 24. Prevention and intersectoral cooperation in the public health system. Types of prevention. Preventive programs in health care, Screening.
 25. Health promotion. Information and explanatory activity (advocacy) as an integral part of medical prevention.
 26. Communication and social mobilization in the interests of health.
 27. Characteristics and content of the work of public health centers, their structural units, prevention and formation of a healthy lifestyle, interaction with other health care institutions.
 28. Moral and ethical aspects of health interventions.
 29. Informatization of public health. Medical information systems.

30. Providing strategic leadership for health and well-being.

"0" version of the exam ticket

Black Sea National University
named after Peter the Great
Educational qualification level - master
Field of knowledge: 22 "Health care"
Specialty 222 "Medicine"
Academic discipline
" Social medicine, public health, history of medicine "

Option № 0

1. Theory and concepts of statistical observation, stages of its implementation. (Maximum number of points - 20).
2. Screening. The main characteristics of screening tests. Specificity and sensitivity of the screening test. (Maximum number of points - 20).
3. Public health, functions and services. (Maximum number of points - 20).
4. Birth rate, indicators in Ukraine. Factors influencing the birth rate. (Maximum number of points - 20).

Approved at a meeting of the Department of Hygiene, Social Medicine , Public Health and Medical Informatics . Minutes № ____ of _____ 2021 p .

The head of the department is professor Zyuzin VO

Examiner Professor Zyuzin VO

Block 4. Organization of health care

Final control

1. Basic principles of health care in Ukraine. Legal principles of health care.
2. Health care systems: goals, functions. Types of health care systems, characteristics, advantages and disadvantages.
3. Reforms in the health care system of Ukraine: reforms in the provision of services, financing, staffing and health care management.
4. Organizational principles of medical care. Types of medical care and facilities that provide it.
5. Definition of the concept of "primary care" (PMD). Basic principles of PMD on the basis of family medicine. Primary care centers.
6. Characteristics of existing organizational models of family doctors. Possible organizational models of family medicine in Ukraine.
7. Tasks and content of the family doctor's work, cooperation with various health care institutions, with social services. The role of primary health care centers in the medical care of the population.
8. Organization of outpatient (specialized and highly specialized) medical care for the population.
9. The content of secondary (specialized) and tertiary (highly specialized, high-tech, highly qualified) inpatient care. Institutions providing inpatient care,
10. Measures for the rational use of bed stock. The role of continuity between outpatient and hospital facilities.
11. The value of inpatient care. Its organizational forms. Functions and structure of the day hospital.
12. Accounting for hospitals, methods of determining and analyzing indicators of their activities.
13. Features of medical care of the rural population; factors that affect it .

14. Hospital district: the principle of creation and characteristics of institutions.
15. Emergency medical care: system, principles, tasks, performance indicators of institutions. Organization of emergency medical care in rural areas.
16. Centers for emergency medical care and disaster medicine. Hospital and ambulance stations, main tasks and functions.
17. Medical and preventive institutions for obstetric and gynecological care, features of their formation in urban and rural areas; organization and content of their activities.
18. Expert assessment of organizational elements of medical care for pregnant women and women with gynecological diseases.
19. Perinatal center. Maternity hospital. Women's consultation. Tasks, content of work, structure, indicators of activity, features of interaction between themselves and establishments providing primary medical care.
20. Institutions that provide medical care to children, their structure and functions. The main sections of the work of a pediatrician, family doctor. Organization of specialized medical care for children.
21. Organization of medical examination of disability. Types of temporary incapacity for work, features of examination for certain types of incapacity for work. Tasks of attending physicians and LCC during the examination of temporary disability.
22. Organization of examination of permanent disability. Types of disability. Medical and social expert commissions (MSEC), their types, functions.
23. Components of quality: structural quality; quality of technologies; quality of results. Indicators of quality and efficiency of medical care. Application of clinical protocols and medical standards.
24. Factors influencing the efficiency of health care facilities: Basic approaches to developing measures to improve health care.
25. Medical and social security of the elderly population. Palliative and hospice care, principles of organization.
26. The concept of "health insurance". Features of the implementation of compulsory and voluntary health insurance. Problems of introduction of insurance medicine in Ukraine.
27. The essence of the science of management, its subject. Principles of management. Components of the management process. Management decision.
28. Awareness of mental health in society. Organization of mental health care at the level of primary health care, preventive and rehabilitation measures.
29. Electronic health. Structure, resources; services.
30. World Health Organization (WHO). Purpose and history of creation, tasks. The importance of WHO for the world and Ukraine.

Block 5. Economics of Health ' I

Final control

1. Subject, methods, purpose, main tasks of health economics.
2. Specifics and mechanism of economic laws in the field of health care.
3. Health as a medical and social, economic category and special consumer value.
4. The essence and methodology of planning activities in the health care system.
5. Patterns of formation, functioning and features of the market of health services and goods.
6. Organizational, economic and legal methods of regulating the market of health services.
7. The essence, main principles and functions of marketing of medical services.
8. Components of marketing activities of a medical institution.
9. Stages of comprehensive marketing research of the medical services market.
10. The economic essence of entrepreneurship in health care ' I said.
11. Organizational and legal forms of entrepreneurial activity, their comparative characteristics.
12. State registration, licensing and accreditation of health care institutions.
13. Financial models of capital management (leasing, factoring).
14. Business plan as a tool for regulating business activities.
15. Basic financial models of health care systems.

16. On state financial guarantees of medical care for the population of Ukraine.
17. Basics of health insurance, compulsory and voluntary health insurance.
18. Payment for medical services and requirements for medical service providers.
19. Comparative characteristics of methods of payment for primary health care.
20. Comparative characteristics of methods of payment for secondary and tertiary care.
21. Principles of formation of remuneration of medical workers in the new economic conditions,
22. Features of formation and regulation of prices in the field of health care.
23. Develop pricing strategies in health care ' I said.
24. The essence and comparative characteristics of methods of economic analysis in order to make management decisions.
25. Economic evaluation of medical programs, the latest methods of treatment.
26. Methodology for assessing the rationality of the cost of medicines.
27. Analysis of the use of fixed assets, bed stock.
28. Analysis of the use of medical equipment, labor resources.
29. Financial condition of the medical enterprise and the mechanism of its estimation.
30. The main indicators of the effectiveness of financial activities of medical enterprises.

"0" version of the test ticket

Black Sea National University
named after Peter the Great

Educational qualification level - master

Field of knowledge: 22 "Health care"

Specialty 222 "Medicine"

Academic discipline

" Social medicine, public health, history of medicine "

Option № 0

5. Basic principles of health care in Ukraine. Legal principles of health care. (Maximum number of points - 20).
6. Hospital district: the principle of creation and characteristics of institutions. (Maximum number of points - 20).
7. The main tasks of economics Health ' I . (Maximum number of points - 20).
8. Key financial model of health ' me. (Maximum number of points - 20).

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The head of the department is professor Zyuzin
VO

Examiner Professor Zyuzin VO

Example of tests and situational tasks

1. The main departments of the city hospital:

- a) prophylactics;
- b) administrative and economic part;
- c) dispensary;
- d) hospital;
- e) polyclinic.

2. The main sections of the family doctor:

- a) treatment of patients;
- b) employment of patients;
- c) carrying out preventive measures;
- d) participation in the work of MSEC;

- e) anti-epidemic works;
- f) medical and preventive care at the place of work;
- g) carrying out preventive vaccinations;
- h) organizational and methodological work.

3. Medico-social factors influencing the organization of medical care for the rural population:

- a) the level of morbidity and disability;
- b) lifestyle;
- c) principles of health care financing;
- d) the degree of development of social services.

4. Components of primary health care (PHC):

- a) medical care on the basis of family medicine;
- b) sanitary and health measures;
- c) general educational activities;
- d) psychological support.

5. Types of medical examination:

- a) medical and social examination of disability;
- b) ethical and diagnostic;
- c) forensic and forensic psychiatric;
- d) partial;
- e) military medical;
- f) mixed;
- g) pathological and analytical.

Problem № 1

Indicate which document is issued in the women's clinic for pregnant women due to harmful production conditions.

Problem № 2

The mortality rate in the surgical department of the hospital № 1 was 1.8%, in the hospital № 2 - 2.4%. The standardized by types of surgical interventions were 2.3% and 1.9%, respectively. In which hospital is the mortality rate higher?

6. Evaluation criteria and tools for diagnosing learning outcomes

Control methods

- Survey (testing of theoretical knowledge and practical skills).
- Test control.
- Writing a review of scientific literature (abstracts), performing individual tasks, their defense.

Current control is carried out on each class according to specific objectives topic zanattya and of those topics that the student is working independently and are not part of the practice session. It is recommended to use types of objective (standardized) control of theoretical and practical training of students.

P idsumkovyy control is carried out in a **final inspection work (PKR)** on completion of study unit on the ba t Ann ix , control s , virtually s classes Yahya per unit . To the PKR allowed students who complete all jobs provided work Mr. avchalnoyu program and the study unit scored the number of points not less than the minimum - **40 points**. The maximum number of points for current educational performance l ness (HDPE) - **80**.

The form of final control should be standardized and include control of theoretical and practical training.

During the PRC, a student can get a maximum of **40 points**. PC P is considered credited if the student received **at least 30 points**.

After the 6th semester, the final control is also conducted in the form of a test, after the 7th semester - in the form of an exam (for the 6th and 7th semesters).

The maximum number of points on the test and exam is **80 points**. Test (exam) managers consider is ARE scheduled if the student scored **at least 50 points**. The distribution of points in the test and exam - see above in the examples of test and examination tickets.

Distribution of points received by students

Kilkist scores that students in the learning unit, is 120- 200 points, including HDPE - 40- 80 points, PKR - 30 40 points on standings and exams - 50 of 80 points.

Accordingly, blo tuples 1 and 2 students can get to practical class (ie a subject) of 2, 5 to 5 (Table.) .

Independent work is evaluated in block 1 from 5 to 10 points, in block 2 - from 7.5 to 15 points (see table).

Assessment of student performance

Type active spine (task)	Maximum number of points	
	Block 1 (III year , 6th semester)	Block 2 (IV year , 7th semester)
Topic 1	5	5
Topic 2	5	5
Topic 3	5	5
Topic 4	5	5
Topic 5	5	5
Topic 6	5	5
Topic 7	5	5
Topic 8	5	5
Topic 9	5	5
Topic 10	5	5
Topic 11	5	5
Topic 12	5	5
Topic 13	5	5
Topic 14	5	-
Individual work	10	15
Together for IPA	80	80
Final control work	40	40
Together for IPA and RCC	1 20	120
Credit, exam	Credit 80	Exam 80
The total amount of points for the semester	200	200

Criteria for assessing knowledge

Evaluation 5 point s on the subject in the 6th and 7th semester s , 38-40 points on PKR and 71-80 score on the test in and exam (A scale ECTS and 5 national scale) response of the student is evaluated if it demonstrates a deep knowledge of all theoretical principles and the ability to apply theoretical material for practical analysis and has no inaccuracies.

Evaluation 4 grade and by subject in the 6th and 7th semester s , 35-37 points on PKR and 61-70 score on the test in and exam (B and C for the ECTS scale and 4 national scale)

response is assessed if it shows knowledge of all theoretical provisions, the ability to apply them in practice, but some fundamental inaccuracies are allowed.

Grade 2 , 5 - 3 score and on the theme of the 6th and 7th semester s , 30-34 points on PKR and 50-60 points on the standings in and exam (D and E on a scale ECTS and 3 national scale) the student's response is evaluated provided that he knows the main theoretical principles and can use them in practice.

7. Recommended sources of information

7.1. Basic

1. Public health: a textbook for students. higher honey. textbook institutions. - Type. 3. - Vinnytsia: "New Book", 2013 . - 560 s.
2. Economic analysis of resource utilization in health care ' I / V DA Pa Roy, J. M. Sappho new, N. M. Zakharov and others. / Edited by Professor VD Paria / N avch. manual - Zhytomyr: Polissya, 2015. - 48 p.
3. Oxford Textbook of Global Public Health , 6th edition. Edited by Rodes Detels. Martin Gulliford, Quarraisha Abdool Karim and Chorh Chuan Tan. - Oxford University Press, 2017. - 1728 p.
4. Medical Statistics at a Glance Text and Workbook. Av i v a Re tr ia, Ca roline Sabin . - Wiley-Blackwell, 2013. - 288 p.
5. Golyachenko O. History of medicine: manual / Alexander Golyachenko, Yaroslav Ganitkevych. - 2nd ed., Add. - Ternopil: TSMU, 2016. - 326p.
6. Verkhatsky SA, Zabludovsky P.Yu. History of Medicine: Nav. Manual. - 4th ed., Ed. And added. - К .: Вища шк., 1991. - 431 с .: іл.

7.2. Auxiliary

1. Board Review in Preventive Medicine and Public Health. Gregory Schwaid. - ELSEVIER., 2017. - 450 p.
2. Donaldson's Essential Public Health, Fourth Edition. Liarn J. Donaldson, Paul Rutter - CRC Press, Taylor & Francis Group, 2017 - 374 p.
3. Epidemiology's Jekel, biostatistics, preventive medicine and public health. Fourth edition. David L. Katz , Joann G. Elmore, Dorothea MG Wild, Sean C. Lucan. - ELSEVIER., 2014. - 405 p.
4. Oxford Handbook of Public Health Practice, Fourth Edition. Charles Guest, Walter Ricciardi, Ichiro Kawachi, Iain Lang . - Oxford University Press, 2012. - 656 p.
5. Example of Biostatistics, Seventh Edition. Stanton A. Glantz - McGraw-HillEducation, 2012. - 320 p.
6. Health economics: textbook. - Vinnytsia: Nova Knyga, 2010. - 112 p.
7. Album A., Norell S. Introduction to modern epidemiology . - Tallinn, 1996. - 122 p.
8. Biostatistics. - К.: Книга плюс; 2009. - 184 p.
9. Vlasov VV Introduction to evidence-based medicine. - М: Медиа Сфера, 2001. - 392 с.
10. Garkavenko SS Marketing: textbook. - К .: Лібра, 2002. - 712 с.
11. Glanz S. Medical and biological statistics. - М.: Практика, 1999. - 459 с.
12. Hrynhalh T. Bases y dokazatelnoy medicine: Per. with English - М.: GEOTAR-MED, 2004. - 240 s.
13. Report on the state of health in Europe 2012. A course for prosperity. - WHO, 2013. - 190 p.
14. World Health Report 2013 - WHO, 2013. - 206 p. (access mode: www.who.int/whr/2013/report/ru).
15. Health Economics: a textbook. - Vinnytsia: Nova Kniga, 2010. - 288 p.
16. Epidemiological methods of studying non-infectious diseases / VM Lekhan, Yu. V. Voronenko, OP Maksymenko and others. - D.: ART-PRESS, 2004. - 184 p.

17. Collection of tests in government testing of hygiene, social medicine, op hashzatsiyi economy and health ' I Teach. manual. - Vinnytsia : New book , 2012 . - 20 0 s.
18. Health 2020 - bases y evropeyskoy policy and strategy for the twentieth and century. - WHO, 2013. - 232 p.
19. Kaminskaya TM The market of medical services: experience of the theoretical and institutional analysis. - X.: ИПИ «Контраст», 2006. - 296 с.
20. Campbell R. McConnell, Stanley L. Brew. Economics: principles, problems and policies. Per. with English 11th ed. - K.: ХаГар-Демос, 1998. - 785 с.
21. Methods of social medicine / ed. OM Ocheredko, OG Protsek. - Vinnytsia: Thesis, 2007. - 410 p.
22. Mocherny SV, Nekrasova VV Fundamentals of business organization: a textbook for universities. - М .: «Приор-издат», 2004. - 544 с.
23. The population of Ukraine. Demographic Yearbook. - Kyiv: State Statistics Committee of Ukraine. (access mode: www.ukrstat.gov.ua).
24. Popchenko TP Reform of Health ' I was in Ukraine: organizational, nor ral legal, financial and economic support. - К .: НІСД, 2012. - 96 с.
25. Handbook of Social Medicine and Health Organization ' me. - Ternopil: Ukrmedknyha, 2001. - 316 p.
26. Social Medicine and Health Organization ' I (for students of dental faculties of higher educational institutions of Ukraine and V levels of accreditation. - KA : The book is a plus, 2010. - 328 p.
27. Flegcher R., Fletcher C, Wagner E. Clinical epidemiology. Fundamentals of evidence-based medicine. - М .: Медиа Сфера, 1998. - 352 с.
28. Annual report on the state of health ' I population, sanitary-epidemiological situation and the results of the health service ' I Ukraine. 2016 / Ministry of Health of Ukraine, State Institution "UISD of the Ministry of Health of Ukraine". - Kyiv, 2017. - 516 p.
29. Economics of health care / IM Sheiman, SV Shishkin, MG Kolosnitsina. - Higher School of Economics, 2009. - 480 p.
30. Health economics: a textbook. - Vinnytsia : Novaya Kniga, 2010. - 144 p.
31. Villanova A. where. Salerno Code of Health / Translated from Latin, preface and comments by AA Sodomory / Arnod de Villanova. - Lviv: Publishing House of the Medical and Legal Center, 2011. - 64 p.
32. Aronov G.Yu., Peleshchuk AP Legends and experiences of Kyiv medicine (people, facts, events, documents) / G. Yu. Aronov, AP Peleshchuk. - K .: Century, 2001. - 302 p.
33. Aronov G. Yu. And others. Prominent names in world medicine / G. Yu. Aronov, OA Grando, MB Mirsky and others: OA Grando (ed.). - K .: RVA "Triumph", 2001. - 320 p.
34. Benyuk N. History of pharmacy of Galicia (XIII - XX centuries) / Natalia Benyuk. - Lviv, 1999. - 215 p.
35. Boltarovych 3. E. Ukrainian folk medicine. History and practice / 3. E. Boltarovich. - K.: Абрис, 1994. - 320 с.
36. Prominent names in world medicine / Ed. O. A. Grando. - K .: RVA "Triumph", 2001. - 320 p.
37. Vorontsov DS, Nikitin VM, Serkov PM Essays on the history of physiology in Ukraine / DS Vorontsov, VM Nikitin, PM Serkov. - K., 1959. - 256 p.
38. Hanitkevych J. Ukrainian doctors-scientists of the first half of the XX century and their scientific schools. Biographical essays and bibliography / Ya. Hanitkevych. - Lviv: NTSh Publishing House, 2002. - 542 p.
39. Hanitkevych J. History of Ukrainian medicine in dates and names / J. Hanitkevych. - Lviv: NTSh Publishing House, 2004. - 368 p.

7.3. Information resources on the Internet

1. World Health Organization 'i . Access mode: www.who.int ;
2. European Health for All Database . Access mode: www.euro.who.int/ru/home ;

3. Cochrane Center for Evidence-Based Medicine . Access mode: www.cebm.net ;
4. Cochrane Library . Access mode: www.cochrane.org ;
5. US National Library of Medicine . Access mode: www.ncbi.nlm.nih.gov/PubMed ;
6. Canadian Center for evidence in health care ' I . Access mode: www.cche.net ;
7. Center for Disease Control and Prevention . Access mode: www.cdc.gov ;
8. Center for Public Health ' I MoH Ukraine . Access mode: www.phc.org.ua ;
9. Ukrainian base of medical and statistical information 'Health ' I for all ". Access mode: <http://medstat.gov.ua/ukr/news.html?id=203> ;
10. British Medical Journal. Access mode: www.bmj.com ;
11. Journal of Evidence-Based Medicine . Access mode: www.evidence-basedmedicine.com