

SYLLABUS

1. General information on the course

Full course name	Social Medicine, Public Health
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра громадського здоров'я
Author(s)	Smiianova Olha Ivanivna, Smiianov Vladyslav Anatoliiovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	2 weeks across 11 semester
Workload	The volume is 3 credits, 90 hours, of which 40 hours is contact work with the teacher (40 hours of practical classes)
Language(s)	English

2. Place in the study programme

Relation to curriculum	Elective course available for study programme "Medicine"
Prerequisites	There are no specific pre-requisites
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

The aim of studying the discipline "Social Medicine, Public Health" is to prepare highly qualified medical specialists capable to solve complex problems in the field of health with understanding of the basic principles of preventive medicine and public health, as well as the skills of independent decision-making in providing high-quality medical care to different categories of the population in the functioning conditions of the modern health system.

4. Contents

Topic 1 Public health

Public health in the context of international and national policy. Basic principles and regulations. Tasks of public health, its components. The main operational functions of public health. History of public health. Modern definitions and terms of public health. Main international documents in public health.

Topic 2 The concept of health and disease. Integral assessment of population health state

The concept of health and disease. Individual and public health. The concept of health and disease. Definition of health by WHO. Individual, group and public health. The concept of public health potential. Resources of health. Integral assessment of the health status of a population: - DALY, Disability Adjusted Life Years; - ALE, Average Life Expectancy; - HALE, Healthy Life Expectancy; - QALE, Quality Adjusted Life Expectancy; - HDI, Human Development Index.

Topic 3 Methods of study and evaluation of demographic indicators

Methods of studying of demographic indicators. Demography as a science. Mechanical and natural movement of population. Regional features of birth rate in Ukraine and modern world. Total mortality, its main causes in different regions, certain countries and Ukraine. Gender-age and territorial characteristics of mortality indicators. Natural population growth. Documents used to study the natural population movement. Procedure of births` and deaths` registration in Ukraine. Average life expectancy. Infant mortality (newborn mortality). Maternal mortality. The value of demographic indicators to assess the state of health in population.

Topic 4 Population morbidity, methods of its study

The concept of morbidity, aim of its studying. Medical and social significance of morbidity as a main cause of temporary and permanent disability, mortality. Types of morbidity studied in Ukraine. The concept of primary, general, infectious, important non-epidemic morbidity and hospitalized morbidity. Sources of information in studying certain types of morbidity. International statistical classification of diseases, injuries and causes of death, principles of its formation and meaning. Methods to determine the indicators of mentioned types of morbidity, their assessment, regional features. Dynamics of morbidity indicators.

Topic 5 Global disease burden

Epidemiology of major non-communicable diseases. Global burden of diseases in Ukraine and in the world. Modern views on the most important socially significant diseases. Consequences of the most important diseases for public health. Characteristics of the most influential diseases in the XXI century. The impact of civilization (globalization) diseases on morbidity and mortality of the population in Ukraine and around the world. Diseases of the circulatory system. Diabetes. Tuberculosis. HIV/AIDS. Neoplasms. Problems of overweight and obesity. Chronic obstructive pulmonary disease (COPD). Ecological health. Problems of international health.

Topic 6 Risk factors for major non-communicable diseases. Modern problems of communicable diseases

Factors provoking the emergence of civilization (globalization) diseases, the main factors leading to their development. Social, biological and psychological problems of their occurrence. Modern problems of communicable diseases, factors of their occurrence and spreading. Ways to protect population from communicable diseases. Economic costs associated with diseases of the population. The public health system as the main instrument of the state's influence monitoring population`s state of health.

Topic 7 The concept of lifestyle. Healthy lifestyle. Health promotion.

The concept of a healthy lifestyle. Health promotion. Formation and organization of a healthy lifestyle and its importance for preservation and promotion of population's health. Sanology and valeology. Tasks and content of public health centers, their interaction with healthcare institutions. Methods and means of medical and hygienic training and education of population.

Topic 8 The concept of prevention. The main types of prevention. Population periodical health examination (dispensarization). Screening.

The concept of prevention. Levels of prevention. The main types of prevention. Development of preventive programs. Legal principles of preventive programs for public health in Ukraine. Dispensary method and its value. Purpose and tasks of dispensarization. Organization of dispensarization for different population groups. Medical examinations. Types of medical examinations. The concept of screening. Screening criterion. Requirements for screening tests.

Topic 9 Types and levels of medical care

Organization and content of work of different types of medical institutions. Nomenclature of medical institutions. Types and levels of medical care. Organization of work of primary health care centers. Organization of outpatient and polyclinic institutions. Organization of hospitals' work. Emergency medical care. Palliative and hospice care. State Blood Service.

Topic 10 Problems of women's and children's health. Reproductive health

The main problems of women's health. State of women's health in Ukraine and world. Organization of medical care for prospective mothers. Medical institutions providing medical care to women. Determination of reproductive health. The value of reproductive health for the processes of reproduction in population. Reproductive health problems. Cognitive and psychological background of reproductive health. Family planning. Influence of socio-economic factors on the state of reproductive health. Health problems of children and adolescents. State of children and adolescent health in Ukraine. Organization of medical care for children and adolescents. Medical institutions that provide medical care to children. Preventive orientation of the work of medical institutions that provide medical care to children. Forming of health-supporting behavior. System of preventive education in students.

Topic 11 Medical examination. Organization of examination of temporary and permanent disability

The purpose of various types of medical examination, institutions that conduct it. The concept of temporary and permanent disability. Organization and procedure of examination of temporary and permanent disability. Types of temporary and permanent disability. Medical institutions conducting examination of temporary and permanent disability. The main documents used in the examination disability. Contemporary rules and features of issuing a sick leave. Disability (invalidity) of the population. Basic principles of conducting an examination of persistent disability. Disability groups. Structure of population disability. The concept of rehabilitation, its types.

Topic 12 Basic healthcare systems

Healthcare systems in the world. State health care system, based on Beveridge and Semashko models. Insurance model of medical service of the population, based on the example of Bismarck model. Market (private) healthcare model. Sources of funding for various models of healthcare systems. Advantages and disadvantages of existing models of healthcare system. Development of the national health care system in Ukraine. Program of medical guarantees to the population of Ukraine. National healthcare strategies and role of the World Health Organization in their formation. Transformation and modernization of healthcare systems in the world. Medical and social insurance.

<p>Topic 13 Quality management of medical care. Management and marketing in health care. Management of medical institution. Management of health care institution. Healthcare Project Management. Financial management of healthcare institutions. Analysis of economic activities of health care institutions. Payment for the work of medical personnel in modern conditions. Business plan of a medical institution. Marketing of medical services. The concept of market in healthcare. Information systems and technologies in medicine. The concept of quality of medical care (QMC). QMC management models: professional, bureaucratic, industrial. Quality control in healthcare. Licensing of healthcare facilities. Accreditation of medical institutions. Certification and standardization in healthcare based on ISO 9000 system. The quality system of medical care in a healthcare institution. The concept of clinical audit. Internal audit as a quality management tool for medical care. Benchmarking.</p>
<p>Topic 14 Behavioral approaches in healthcare. History of behavioral economics development. Methods of behavioral economics. Psychological types "humane" and "economical". The theory of "nudges". Behavioral factors in preservation of health and occurrence of diseases. Typical examples of people's behavior associated with health threats. Methods of behavioral economics in prevention of chronic non-communicable diseases. Behavioral economics and donation. Behavioral economics and healthy diet.</p>
<p>Topic 15 Final module control Final module control</p>

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	To assess the influence of socio-economic and biological determinants on the health of an individual, family, or population.
LO2	To organize public medical care and marketing of medical service.
LO3	To conduct epidemiological and medical-statistical research of public health; ability to process governmental, social, economic, and medical information.
LO4	To perform disability examination.
LO5	To manage healthcare processes that are complex, unpredictable and require new strategic approaches.
LO6	To develop and implement scientific and applied healthcare projects.

7. Teaching and learning activities

7.1 Types of training

<p>Topic 1. Public health</p> <p>pr.tr.1 "Public health" (full-time course)</p> <p>Public health in the context of international and national policy. Basic principles and regulations. Tasks of public health, its components. The main operational functions of public health. History of public health. Modern definitions and terms of public health. Main international documents in public health.</p>
<p>Topic 2. The concept of health and disease. Integral assessment of population health state</p>

pr.tr.2 "The concept of health and disease." (full-time course)

The concept of health and disease. Individual and public health. The concept of health and disease. Definition of health by WHO. Individual, group and public health. The concept of public health potential. Resources of health.

pr.tr.3 "Integral assessment of the health status of a population." (full-time course)

Integral assessment of the health status of a population: - DALY, Disability Adjusted Life Years; - ALE, Average Life Expectancy; - HALE, Healthy Life Expectancy; - QALE, Quality Adjusted Life Expectancy; - HDI, Human Development Index.

Topic 3. Methods of study and evaluation of demographic indicators

pr.tr.4 "Methods of study and evaluation of demographic indicators" (full-time course)

Methods of studying of demographic indicators. Demography as a science. Mechanical and natural movement of population. Regional features of birth rate in Ukraine and modern world. Total mortality, its main causes in different regions, certain countries and Ukraine. Gender-age and territorial characteristics of mortality indicators. Natural population growth. Documents used to study the natural population movement. Procedure of births` and deaths` registration in Ukraine. Average life expectancy.

pr.tr.5 "Infant mortality, perinatal mortality, stillbirths, maternal mortality." (full-time course)

Infant mortality (newborn mortality). Perinatal mortality. Stillbirths. Maternal mortality. The value of demographic indicators to assess the state of health in population.

Topic 4. Population morbidity, methods of its study

pr.tr.6 "Population morbidity, methods of its study" (full-time course)

The concept of morbidity, aim of its studying. Medical and social significance of morbidity as a main cause of temporary and permanent disability, mortality. Types of morbidity studied in Ukraine. The concept of primary, general, infectious, important non-epidemic morbidity and hospitalized morbidity. Sources of information in studying certain types of morbidity.

pr.tr.7 "International Classification of Diseases (ICD-11)" (full-time course)

International classification of diseases, injuries and causes of death (ICD-11), principles of its formation and meaning. Methods to determine the indicators of mentioned types of morbidity, their assessment, regional features. Dynamics of morbidity indicators.

Topic 5. Global disease burden

pr.tr.8 "Global disease burden" (full-time course)

Epidemiology of major non-communicable diseases. Global burden of diseases in Ukraine and in the world. Modern views on the most important socially significant diseases. Consequences of the most important diseases for public health. Characteristics of the most influential diseases in the XXI century. The impact of civilization (globalization) diseases on morbidity and mortality of the population in Ukraine and around the world. Diseases of the circulatory system. Diabetes. Neoplasms.

pr.tr.9 "Tuberculosis. HIV/AIDS. Problems of overweight and obesity." (full-time course)
Tuberculosis. HIV/AIDS. Problems of overweight and obesity. Chronic obstructive pulmonary disease (COPD). Ecological health. Problems of international health.

Topic 6. Risk factors for major non-communicable diseases. Modern problems of communicable diseases

pr.tr.10 "Risk factors for major non-communicable and communicable diseases. Social determinants." (full-time course)

Factors provoking the emergence of civilization (globalization) diseases, the main factors leading to their development. Social determinants. Modern problems of communicable diseases, factors of their occurrence and spreading. Ways to protect population from communicable diseases. Economic costs associated with diseases of the population. The public health system as the main instrument of the state's influence monitoring population's state of health.

Topic 7. The concept of lifestyle. Healthy lifestyle. Health promotion.

pr.tr.11 "The concept of lifestyle. Healthy lifestyle. Health promotion" (full-time course)

The concept of a healthy lifestyle. Health promotion. Formation and organization of a healthy lifestyle and its importance for preservation and promotion of population's health. Sanology and valeology. Tasks and content of public health centers, their interaction with healthcare institutions. Methods and means of medical and hygienic training and education of population.

Topic 8. The concept of prevention. The main types of prevention. Population periodical health examination (dispensarization). Screening.

pr.tr.12 "The concept of prevention. The main types of prevention. Population periodical health examination (dispensarization). Screening." (full-time course)

The concept of prevention. Levels of prevention. The main types of prevention. Development of preventive programs. Legal principles of preventive programs for public health in Ukraine. Dispensary method and its value. Purpose and tasks of dispensarization. Organization of dispensarization for different population groups. Medical examinations. Types of medical examinations. The concept of screening. Screening criterion. Requirements for screening tests.

Topic 9. Types and levels of medical care

pr.tr.13 "Types and levels of medical care" (full-time course)

Organization and content of work of different types of medical institutions. Nomenclature of medical institutions. Types and levels of medical care. Organization of work of primary health care centers. Organization of outpatient and polyclinic institutions. Organization of hospitals' work. Emergency medical care. Palliative and hospice care. State Blood Service.

Topic 10. Problems of women's and children's health. Reproductive health

pr.tr.14 "Problems of women's and children's health. Reproductive health" (full-time course)

The main problems of women's health. State of women's health in Ukraine and world. Organization of medical care for prospective mothers. Medical institutions providing medical care to women. Determination of reproductive health. The value of reproductive health for the processes of reproduction in population. Reproductive health problems. Cognitive and psychological background of reproductive health. Family planning. Influence of socio-economic factors on the state of reproductive health. Health problems of children and adolescents. State of children and adolescent health in Ukraine. Organization of medical care for children and adolescents. Medical institutions that provide medical care to children. Preventive orientation of the work of medical institutions that provide medical care to children. Forming of health-supporting behavior. System of preventive education in students.

Topic 11. Medical examination. Organization of examination of temporary and permanent disability

pr.tr.15 "Medical examination. Organization of examination of temporary and permanent disability" (full-time course)

The purpose of various types of medical examination, institutions that conduct it. The concept of temporary and permanent disability. Organization and procedure of examination of temporary and permanent disability. Types of temporary and permanent disability. Medical institutions conducting examination of temporary and permanent disability. The main documents used in the examination disability. Contemporary rules and features of issuing a sick leave. Disability (invalidity) of the population. Basic principles of conducting an examination of persistent disability. Disability groups. Structure of population disability. The concept of rehabilitation, its types.

Topic 12. Basic healthcare systems

pr.tr.16 "Basic healthcare systems" (full-time course)

Healthcare systems in the world. State health care system, based on Beveridge and Semashko models. Insurance model of medical service of the population, based on the example of Bismarck model. Market (private) healthcare model. Sources of funding for various models of healthcare systems. Advantages and disadvantages of existing models of healthcare system. Development of the national health care system in Ukraine. Program of medical guarantees to the population of Ukraine. National healthcare strategies and role of the World Health Organization in their formation. Transformation and modernization of healthcare systems in the world. Medical and social insurance.

Topic 13. Quality management of medical care. Management and marketing in health care.

pr.tr.17 "Quality management of medical care." (full-time course)

Management of medical institution. Management of health care institution. Healthcare Project Management. Financial management of healthcare institutions. Analysis of economic activities of health care institutions. Payment for the work of medical personnel in modern conditions.

<p>pr.tr.18 "Management and marketing in health care." (full-time course)</p> <p>Business plan of a medical institution. Marketing of medical services. The concept of market in healthcare. Information systems and technologies in medicine. The concept of quality of medical care (QMC). QMC management models: professional, bureaucratic, industrial. Quality control in healthcare. Licensing of healthcare facilities. Accreditation of medical institutions. Certification and standardization in healthcare based on ISO 9000 system. The quality system of medical care in a healthcare institution. The concept of clinical audit. Internal audit as a quality management tool for medical care. Benchmarking.</p>
<p>Topic 14. Behavioral approaches in healthcare.</p>
<p>pr.tr.19 "Behavioral approaches in healthcare. Module continuous assessment" (full-time course)</p> <p>History of behavioral economics development. Methods of behavioral economics. Psychological types "humane" and "economical". The theory of "nudges". Behavioral factors in preservation of health and occurrence of diseases. Typical examples of people`s behavior associated with health threats. Methods of behavioral economics in prevention of chronic non-communicable diseases. Behavioral economics and donation. Behavioral economics and healthy diet.</p>
<p>Topic 15. Final module control</p>
<p>pr.tr.20 "Final module control" (full-time course)</p> <p>Final module control</p>

7.2 Learning activities

LA1	Training for practicals
LA2	Training for current and final module control
LA3	Case studies
LA4	Solving open-type tasks, using online technologies
LA5	E-learning in systems (Zoom, MIX.sumdu.edu.ua)
LA6	Self-education
LA7	Solving individual computational and analytical tasks
LA8	Training for KROK-2 testing
LA9	Watching the tutorial videos
LA10	Individual research project (student`s scientific paper, article, thesis)
LA11	Reviewing manuals and relevant informational resources
LA12	Preparation and presentation of the report

8. Teaching methods

Course involves learning through:

TM1	Team-based learning (TBL)
TM2	Case-based learning (CBL)

TM3	Research-based learning (RBL)
TM4	Brainstorming
TM5	Think-pair-share method
TM6	Educational discussion / debates
TM7	Role play

Discipline learning is proceeded using modern educational methods (CBL, TBL, RBL), which promote the development of professional abilities and stimulate the creative and scientific activities; they are aimed at training practical-oriented specialists.

GC1. Ability to abstract thinking, analysis, and synthesis. GC2. Ability to learn, master modern knowledge. GC3. Ability to apply the knowledge in practice. GC4. Knowledge and understanding of the subject area and professional activity comprehension. GC5. Ability to adapt and act in a new situation. GC6. Ability to make reasoned decisions. GC7. Teamwork ability. GC8. Ability to interpersonal skills. GC11. Skills in information and communication technologies. SC1. Skills in surveying and clinical examination of a patient. SC2. Ability to determine the required set of laboratory and instrumental studies and to evaluate their results. SC3. Ability to establish a provisional and clinical diagnosis of disease.

9. Methods and criteria for assessment

9.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	$170 \leq RD \leq 200$
Above the average standard but with minor errors	4 (Good)	$140 \leq RD < 169$
Fair but with significant shortcomings	3 (Satisfactory)	$120 \leq RD < 139$
Fail – some more work required before the credit can be awarded	2 (Fail)	$0 \leq RD < 119$

9.2 Formative assessment

FA1	Recitation with further feedback from teacher, depending on its results
FA2	Teacher guidance through the process of practical studies
FA3	Defence of the project based on the individual research project
FA4	Peer assessment
FA5	Solving case studies` tasks by students during practical studies with further discussion
FA6	Testing
FA7	Revising and assessment of open-type tasks
FA8	Cases` solving
FA9	Solving case problems from the KROK-2 testing

9.3 Summative assessment

SA1	Current assessment (written tasks, recitation, testing and case-studies results)
SA2	Conducting a practice-oriented differentiated test

Form of assessment:

12 semester		200 scores
SA1. Current assessment (written tasks, recitation, testing and case-studies results)		120
	Oral recitation, solving practical and case tasks, computer-based testing	120
SA2. Conducting a practice-oriented differentiated test		80
		80

Form of assessment (special cases):

12 semester		200 scores
SA1. Current assessment (written tasks, recitation, testing and case-studies results)		120
	In the case of special conditions, classes are provided online, using platforms Mix.sumdu.edu.ua, Zoom, Google meet.	120
SA2. Conducting a practice-oriented differentiated test		80
	In the case of special conditions, test is passed online; using platforms Zoom, Google meet.	80

When studying materials of the module, student receives maximum of 5 points for each practical lesson (the score is set in traditional 4 point assessment system). At the end of the cycle, the arithmetic mean of student's academic achievement is calculated. The maximum of points a student can get during practical classes of all course is 120. The number of student points is calculated by the formula: 120 times the arithmetic mean and divided into 5. The form of final control of the course is the final module control (FMC). FMC is conducted after studying all topics and ending of all practical classes in writing with further oral discussion. FMC issues include control of student theoretical knowledge. Students are allowed to pass FMC, if all types of activities from educational program of the discipline completed, namely:

- attended all classes;
- worked out all missed classes in-time;
- scored the minimum number of points for course achievement (not less than 72, that equals "3" in the national scale).
- The maximum number of points a student can get for FMC is 80.
- The minimum number of points a student must score for FMC is 48.

10. Learning resources

10.1 Material and technical support

MTS1	Information and communication system
MTS2	Library collection
MTS3	Computers, computer-based systems and nets

MTS4	Medical establishments/buildings and equipment (clinics, hospitals, etc.)
MTS5	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens)
MTS6	Software (for distance learning, online-testing/questioning, virtual laboratories, visiting virtual patients, creating computer graphics, modeling, etc.)

10.2 Information and methodical support

Essential Reading	
1	Oxford Textbook of Global Public Health, 6th edition. Edited by Roger Detels, Martin Gulliford, Quarraisha Abdool Karim, Chorh Chuan Tan. – Vol. 1. OxfordUniversity Press. Published: 2015. - 364 p.
2	Oxford Textbook of Global Public Health, 6th edition. Edited by Roger Detels, Martin Gulliford, Quarraisha Abdool Karim, Chorh Chuan Tan. – Vol. 2. OxfordUniversity Press. Published: 2015. - 541p.
3	Oxford Textbook of Global Public Health, 6th edition. Edited by Roger Detels, Martin Gulliford, Quarraisha Abdool Karim, Chorh Chuan Tan. – Vol. 3. OxfordUniversity Press. Published: 2015. - 737 p.
4	On Competition and Regulation in Health Care Systems [Электронний ресурс] / R. Nuscheler. — Berlin : Peter Lang, 2005. — 176 p.
5	Global Health Economics. Shaping Health Policy in Lowand Middle-Income Countries [Электронний ресурс] / P. Revill, M. Suhrcke, R. Moreno-Serra, M. Sculpher. — New Jersey : World Scientific, 2020. — 349 p.
Supplemental Reading	
6	The Future Health Workforce: Integrated Solutions and Models of Care [Электронний ресурс] / M. Balasubramanian, S. Short. — Basel : MDPI, 2021. — 232 p.
7	Bernd Rechel, Anna Maresso, Anna Sagan. Organization and financing of public health services in Europe. Country reports. European Observatory on Health Systems and Policies, 2018; 148.
Web-based and electronic resources	
8	www.euro.who.int
9	The Centre for Evidence-Based Medicine www.cebm.net
10	Cochrane library www.cochrane.org
11	World Health Organization www.who.int
12	https://phc.org.ua/
13	https://mon.gov.ua