FACULTY OF MEDICINE

STUDY PROGRAM 0912.1 MEDICINE

NICOLAE TESTEMITANU CHAIR OF SOCIAL MEDICINE AND HEALTH MANAGEMENT

APPROVED

at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum faculty Medicine

Minutes No. 10 of 18.06.20

Chairman, PhD, associate professor

Suman Serghei _____

APPROVED

at the Council meeting of the Faculty Medicine no. 2

Minutes No. 4 of 23.06.20

Dean of Faculty, PhD, associate professor

Bețiu Mircea _____

APPROVED

at the meeting of the *Nicolae Testemitanu* Chair of Social Medicine and Health Management

Minutes No. 7 of 22.01.2020

Head of chair, PhD, associate professor

Elena Raevschi _____

SYLLABUS

DISCIPLINE **SOCIAL MEDICINE AND MANAGEMENT**

Integrated studies

Type of course: **Compulsory**

Chisinau, 2020

I. INTRODUCTION

- **General presentation of the discipline: place and role of the discipline in the formation of the specific competences of the professional / specialty training program**

  "Social medicine and management" is a branch of medicine that deals with the study of population health status in relation to social factors, as well as with the forms of organization of healthcare system. Social medicine and health management studies social and medical aspects of different diseases, as well as the efficiency and effectiveness of the prevention and control measures undertaken at population level. Health care management studies concern the contemporary forms and methods of organization, planning, economy, financing, analysis, evaluation and control of the medical healthcare services within the health system. The discipline includes a wide range of demographic, epidemiological, statistical, social and other methods related to the analysis of population health and its determinants.

- **Mission (aim) of the curriculum in professional training:**

  To learn the main methods used in assessing the population health status, as well as the contemporary health care approaches to the prevention and control of noncommunicable diseases. Mastering the basic issues concerning the organization of the health systems in the world, assimilation of theoretical and practical knowledge regarding the organizational structure and the operating particularities of the main types of health systems.

- Language (s) of the course: Romanian, Russian, English, French.
- Beneficiaries: students of the IV year, faculty Medicine I and Medicine II, **specialty Medicine.**

II. MANAGEMENT OF THE DISCIPLINE

Code of discipline		**U.08.O.075**	
Name of the discipline		**Social Medicine and Management**	
Person(s) in charge of the discipline		**Penina O., Raevschi E., Obreja G.**	
Year	**IV**	Semester/Semesters	**VIII**
Total number of hours, including:			**60**
Lectures	**20**	Practical/laboratory hours	
Seminars	**30**	Self-training	**10**
Clinical internship			
Form of assessment	**CD**	Number of credits	**2**

III. TRAINING AIMS WITHIN THE DISCIPLINE

✓ *at the level of knowledge and understanding:*

- To know and to use appropriately the notions specific to the discipline, as well as its theoretical and practical contents;
- To know health determinants and population health indicators;
- To know the methods of measuring the main demographic processes and to understand the principles of demographic analysis of the population health status;
- To know the determinants of the demographic ageing process of the population and its medical and social consequences;
- To know the types of morbidity according to the data sources;
- To know the International Classification of Diseases and Causes of Death (CIM), and coding of diseases and causes of death according to the Xth Revision of the CIM;
- To know the main factors that influence on the level of incidence and prevalence, and to understand the interrelationship between incidence and prevalence;
- To be familiar with the prevention levels for noncommunicable diseases.
- To know the socio-medical aspects of non-communicable diseases in the developed and developing countries;
- To know the typologies and characteristics of the health systems in the world;
- To know functions, aim and objectives of a health system;
- To know legislative and normative bases of the health system in the Republic of Moldova;
- To know and understand the principles of the organization and functioning of health care systems in the world and in the Republic of Moldova;
- To know the financing options, modes of the provision of healthcare services, as well as the payment mechanisms;
- To know the activity indicators of different types of healthcare services;
- To know the evidence and reporting documentation used in the autochthonous health system;

- To know the functions of the management and managerial roles;
- To know principles of expertise for determining disability and work capacity in the Republic of Moldova.

✓ *at the application level:*
- To calculate and to interpret the statistical indicators (ratio, proportion, rate, risk) in the epidemiological analysis of population health data;
- To calculate and to interpret demographic indicators (natural growth, migration balance and annual population growth);
- To calculate and to interpret mortality indicators ;
- To calculate and to interpret morbidity indicators;
- The correct use of mortality and morbidity indicators for the comparative analysis of the health status of populations.
- To interpret provisions of the national health legislation;
- To distinguish the types of healthcare;
- To distinguish and to interpret the modalities of fundraising and payment of health services.
- To calculate and interpret the indicators on evaluation of health care services.

✓ *at the integration level:*
- To be able to evaluate the place and role of Social medicine and management in the clinical preparation of student-physician;
- To be competent to use the knowledge and methodology of Social medicine and management to explain the health status of the population;
- To be able to integrate the obtained knowledge and skills in the field of Social medicine and management with the knowledge obtained from clinical disciplines in order to carry out qualitative scientific researches;
- To be able to apply the knowledge and skills obtained within the course to the realization of a student's scientific research in the framework of his/her license thesis and future career.

IV. PROVISIONAL TERMS AND CONDITIONS
- Language requirements (intermediary level);
- Basics of the school mathematics, and fundamental and applicative medical disciplines;
- Basic computer skills (Internet, processing of documentation, MS Office Word, EXCEL, PowerPoint);
- Ability to work in a team;
- Non-work-related activities are strictly forbidden, disconnected mobile phones;
- Lateness is not tolerated.

V. THEMES AND ESTIMATE ALLOCATION OF HOURS
Lectures, practical hours/ laboratory hours/seminars and self-training

Nr. d/o	THEME	Number of hours		
		Lectures	Practical hours	Self-training
1.	Social medicine and management as a science. The subject matter of the study. Methodological aspects of the evaluation of population health and its determinants. Health policy and strategy.	4	3	1
2.	Introduction to demographic analysis of population health. Population structure and demographic processes.	4	6	2
3.	Analysis of population morbidity. International Classification of Diseases and Causes of Death. Disability.	2	6	1
4.	Prevention and control of noncommunicable diseases. Global strategies for the prevention and control of non-communicable diseases.	2	6	2
5.	Management and organization of health systems. Mandatory health insurance in the Republic of Moldova.	4	3	2
6.	Health management: general concepts. Management of the healthcare services.	4	6	2
	Total	**20**	**30**	**10**

VI. REFERENCE OBJECTIVES OF CONTENT UNITS

Objectives	Content units
Theme (chapter) 1. Demographic analysis of population health	
- *To define* the basic concepts of social medicine and management; - *To know* the importance of measuring and analysing the health of the community; - *To demonstrate* the ability to solve practical problems related to the use of demographic methods to analyse the health of a community; - *To apply* methods for calculating crude and specific mortality rates by sex, age and causes of death; - *To integrate* the knowledge in demographic analysis of population health with other disciplines.	1. Social medicine and management as a science: the main goal and functions. Methods of investigation of population health. Health determinants; 2. Introduction to demographic analysis of population health. Demographic events and processes. Statistical indicators: ratio, rate, proportion. Calculation of the population size through the balance equation. Natural growth and net migration. Annual population growth. 3. Data sources in demography. Population census and population register. Vital statistics. 4. Population structure by sex and age. Age pyramid: types and characteristics. Population ageing process. Dependency ratio. The medical and social issues of the older population. 5. Mortality analysis. Crude, specific and standardized mortality rates. Mortality by causes of death. Life expectancy at birth and life tables. 6. Maternal mortality. Infant and perinatal mortality. Types and methods of calculation. Definitions of "live-birth" and "still-birth" according to the World Health Organization. Maternal mortality.
Theme (chapter) 2. Measuring morbidity. Prevention and control of noncommunicable diseases	
- *To define* the specific terminology for morbidity analysis; - *To know* the global strategies for control and prevention of noncommunicable diseases; - *To demonstrate* ability to solve practical problems related to morbidity analysis at the community level; - *To apply* methods for calculating morbidity indicators; - *To integrate* the knowledge in morbidity analysis with other disciplines.	1. Definitions of health and disease. Morbidity: definition, methods of measurement, sources of information. Types of morbidity by sources of information. 2. Morbidity indicators: incidence and prevalence. Cumulative incidence (incidence of risk), incidence odds and incidence density. Point prevalence and period prevalence. Interrelation between incidence and prevalence. 3. International Classification of Diseases and Causes of Death. 4. Consequences of the disease. Disability. Disability dimensions by WHO. Global burden of disease. Year of Potential Life Lost (YPLL) and Disability-Adjusted Life Years (DALY). 5. Expertise for determining disability and work capacity. The main notions. 6. Noncommunicable diseases: definition, types, risk factors and prevention levels. Screening. Surveillance systems for behavioral risk factors in the world. 7. Global strategies on noncommunicable diseases prevention and control. Assessment of health indicators in Europe and the World: European Core Health Indicators (ECHI); Global Monitoring Framework for Noncommunicable Diseases (GMF).
Theme (chapter) 3. Management and organization of health systems	
- *To define* the health system, its functions and final results according to WHO; - *To know* the ways of financing the health systems in the world and in the Republic of Moldova; - *To demonstrate* the ability to perform the comparative analysis of health systems; - *To apply* methods for analysing the quality of medical services; - *To integrate* health management knowledge with other disciplines (studies, analysis etc) and physician's career.	1. Health system: definition, functions and objectives / final results according to the WHO. 2. Funding function of the health system. Main ways of financing health systems. Classification of health systems according to financial flow. 3. Financing the health system from the state budget. Characteristics, advantages and disadvantages. 4. Financing health care through health insurance. Social health insurance. Private, voluntary health insurance. Characteristics, advantages and disadvantages. 5. Organization of the payment and service delivery system. The main ways of payment for medical services: pay per service, pay per treatment case, pay per day care / hospitalization, global budget, etc. 6. Organization of health systems in the World and the Republic of Moldova. Analysis of the quality of medical services; 7. Emergency medical assistance, primary health care, hospital health care, mother and child health care services (perinatal service). Assessment and analysis of indicators. Health legislation specific to health care activity in the Republic of Moldova.

VII. PROFESSIONAL (SPECIFIC (SC)) AND TRANSVERSAL (TC) COMPETENCES AND STUDY OUTCOMES

✓ **Professional (specific) (SC) competences**

CP5.
- Knowledge of the basic concepts and notions regarding social medicine and management;
- Capabilities to perform an analysis of population health based on demographic and epidemiological indicators;
- Knowledge of global strategies to control and prevent noncommunicable diseases, as well as systems for assessing population health indicators in the European Community and the world;
- Abilities to provide health information and education on different topics, to promote the health of the population;
- Development of moral values and professional ethics.

CP6.
- Learning the principles of organisation of the health systems in the world and of the methods of analysing their activity;
- Abilities to assess and interpret correctly the indicators of health services activity to increase the quality of healthcare services.

✓ **Transversal competences (TC)**

CT1.
- To use the knowledge of Social medicine and management in the context of other disciplines and practical problems;
- To know and apply the provisions of legislative and normative acts regulating the health system.

CT2.
- Student's development and empowerment;
- Student's openness to lifelong learning.

CT3.
- To demonstrate the involvement in learning process;
- Student's ability to social interaction, development of oral and written communication skills.

✓ **Study outcomes**

The student at the end of the course will be able to:
- Acquiring the specific issues of the subject "Social medicine and management" and correlating it with the knowledge acquired in other disciplines;
- Analysis, explanation and interpretation of phenomena that characterize the population health state (mortality, morbidity) in correlation with the risk factors and health determinants;
- Knowledge, understanding of the basic notions and concepts of management and of the management of medical services delivery, their appropriate use in professional communication;
- Understanding the principles of organization and functioning of health systems in the world;
- Accepting the principles of organizing the health care system and the delivery of medical services and methods of analyzing their activity;
- Capacity building to carry out a scientific research on the assessment of the health status of the population.

Note. Study outcomes (are deduced from the professional competencies and formative valences of the informational content of the discipline).

VIII. STUDENT'S SELF-TRAINING

No.	Expected product	Implementation strategies	Assessment criteria	Implementation terms
1.	Working with information sources	To read the material carefully for the corresponding theme from the methodological recommendations. Study of the minimum and additional bibliography.	The ability to analyze and synthetize, the ability to interpret, to explain and to present the didactic material	During the semester
3.	Solving the practical problems	Practical problems are solved after analyzing the information on the topic in the textbook. Some practical problems can be solved on the computer with MS Office EXCEL in the computer room of the Department.	The correctness of the calculations, the quality of interpretation and formulation of the conclusions.	During the semester

IX. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-ASSESSMENT

- *Teaching and learning methods used*

For more effective learning in the course "Social medicine and management" and attaining of the didactic process objectives, both traditional methods (exposing, conversation, exercise) and those considered today to be more effective for university education (problem-based learning, case study, project method, modeling) are used.

Practical methods use frontal methods, individual activity methods, group activity methods. Practical training within the course uses computer-assisted training / self-training (MS Office EXCEL, PowerPoint). Self-training includes: study of course material, study of minimum and additional bibliography, solving practical problems, computer-based self-training, working with exam's subjects.

- *Applied teaching strategies / technologies* (specific to the discipline)

Communication Technologies such as PowerPoint presentations are used during the theoretical lectures and practical seminars.

- *Methods of assessment (including the method of final mark calculation)*

Current:

The current assessment during the semester includes 2 midterm tests.
1. Computer-based midterm test #1 – Demographic analysis of the population health
2. Computer-based midterm test #2 – Measuring morbidity and health systems management

The semester mark is calculated as the average of two midterm tests.

Final: Examination.

The Examination for the discipline "Social medicine and management" represents the test-grid test. It includes 50 random questions from each of the studied themes. The test-grid covers 40% single-choice questions and 60% multiple-choice questions. The student has at his/her disposal 50 minutes to answer to the grid-test.

The subjects for the final examination are approved at the chair meeting and are notified to the students at the beginning of the module.

Those students who have the semester mark less than 5.00 and / or did not recover their absence(s) for the theoretical lectures and practical seminars (no absences are admitted) are not admitted to the final examination by the Chair.

The final mark is calculated as the average of the semester mark (coefficient is 0.5) and the mark for the test-grid obtained at the exam (coefficient is 0.5).

Method of mark rounding at different assessment stages

Intermediate marks scale (annual average, marks from the examination stages)	National Assessment System	ECTS Equivalent
1.00-3.00	**2**	**F**
3.01-4.99	**4**	**FX**
5.00	**5**	**E**
5.01-5.50	**5.5**	
5.51-6.0	**6**	
6.01-6.50	**6.5**	**D**
6.51-7.00	**7**	
7.01-7.50	**7.5**	**C**
7.51-8.00	**8**	
8.01-8.50	**8.5**	**B**
8.51-8.00	**9**	
9.01-9.50	**9.5**	**A**
9.51-10.0	**10**	

The average annual mark and the marks of all stages of final examination - are expressed in numbers according to the mark scale (according to the table), and the final mark obtained is expressed in number with two decimals, which is transferred to student's record-book.

Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to have two re-examinations.

X. RECOMMENDED LITERATURE:

A. Compulsory:

1. **PENINA O., RAEVSCHI E**., 2016. *Overview of demography*. Methodological recommendations for the course in Social Medicine & Health Management for medical students. Chisinau: Medicina, 2016, 32p.
2. **RAEVSCHI E., PENINA O**., **OBREJA G.**, 2017. *Measuring population health: approaches to noncommunicable disease prevention and control*. Methodological recommendation for the course in Social medicine & Health management for medical students. Chisinau: Medicina, 38p.

B. Additional

3. **TINTIUC D (ED.), GROSSU IU, ET AL.**, 2007. *Sănătate publică și management*, CEP "Medicina", Chișinău, Universitatea de Medicină și Farmacie "Nicolae Testemițanu", 896 p.
4. **JOCELINE POMERLEAU AND MARTIN MCKEE**, 2005. *Issues in Public Health*. Open University Press. 240 p.