

## SUMMARY OF THE ELECTIVE COURSE

### SOCIOLOGY AND MEDICAL SOCIOLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 1 «Sociology and medical sociology»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** is to master students' skills of sociological analysis of society, determining their place and role in it, forming an understanding of the functioning and development of medicine and health care as a social institution, the relationship of health and social aspects of life people, the application of sociological knowledge in life and medical practice.

**Main tasks:**

- ensuring students' awareness of the importance of social approaches and individual-personal orientation in the professional activity of a doctor;
- formation in students of the basis of the system vision of society, health care as a complex functional system, its qualitatively new tasks and functions in the modern world.
- providing students with the necessary theoretical basis for the formation of holistic approaches to man, understanding of health as a multidimensional phenomenon, in the context of comprehensive consideration of various factors, including psychosomatic and sociocultural factors.
- acquainting students with the possibilities of using the main methods of sociological research in the field of medicine and health care.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

**- program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-

communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Trukhmanova S. L.)

**SUMMARY OF THE ELECTIVE COURSE**  
**FUNDAMENTALS OF ECONOMIC THEORY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 2 «Fundamentals of economic theory»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation of a system of knowledge about the essence of economic processes, principles of formation of economic policy in the field of health care.

**Main tasks:** Studying the principles of economic life of society; disclosure of patterns of development of the economic system, which are necessary for the concept of the mechanism of functioning of medical institutions in market relations.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **professional:**

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication

of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T. V.)

## SUMMARY OF THE ELECTIVE COURSE

### The Basis of Psychology. The Basis of Pedagogy

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 3 «The Basis of Psychology. The Basis of Pedagogy»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** get acquaintance with basic theoretical knowledge of psychology and pedagogy; develop skills of practical use of the received psychological and pedagogical knowledge in doctor's practical activity.

**Main tasks:**

1. To acquaint students with the basic concepts of psychology, its tasks, subject and methods.
2. To form understanding of the basic economic evolutions of the mental state in phylogeny, anthropogenesis and ontogenesis.
3. To recognize the features of sensory-perceptual phenomena, their basic parameters and patterns.
4. To form an idea of the mnemonic and attentional processes.
5. To acquaint students with the laws of thinking, its types and mental operations. To form an idea of the imagination and its manifestations.
6. To form the basis for a deeper understanding of emotional and volitional processes.
7. To give a general outline of the psychology of personality.
8. To form an idea of the basic concepts of pedagogy.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

**- professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**- program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Philosophy and Social Sciences Department (sen. lect. Ponomarova L. M.)



## SUMMARY OF THE ELECTIVE COURSE

### LOGIC. FORMAL LOGIC

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 4 «Logic. Formal logic» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**ECTS credits** – 1,75

**Final Control** – credit.

**Objectives:** the subject lays the foundations of knowledge of the rules of analytical reasoning, the use of laws and principles of correct thinking, forms the future specialist's culture of thinking. The discipline explores a way to gain new knowledge in science, professional and everyday thinking.

**Main tasks:** teach students effective means of constructing correct reasoning and means of finding the causes of logical errors and ways to eliminate them; form knowledge about forms of thinking and laws and explain their practical significance for the professional activity of the future specialist; create a proper theoretical basis for the young specialist's outlook self-determination; involve students in the mankind worldview and methodological culture accumulated throughout the history of existence.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 17. Ability to keep medical records.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to

communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T.R.)

## SUMMARY OF THE ELECTIVE COURSE

### ETHIC PROBLEMS IN MEDICINE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 5 «Ethic Problems in Medicine» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the subject lays the foundations of knowledge of analytical reasoning rules, the use of laws and principles of correct thinking, forms the future specialist's culture of thinking. The discipline explores a way to gain new knowledge in science, professional and everyday thinking.

**Main tasks:** form intelligent worldview of future healthcare professionals, professional thinking based on the principles of morality and deep professional knowledge and skills. Master the theoretical knowledge necessary for development of optimum behavior model at communication with patients. Provide students with up-to-date information on the legal regulation of a doctor's professional activity. Acquire appropriate skills of professional team communication.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)

## SUMMARY OF THE ELECTIVE COURSE MEDICAL PSYCHOLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 6 «MEDICAL PSYCHOLOGY» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** study of the most modern achievements of domestic and foreign medical psychology in matters of psychodiagnostics, psychological correction, psychological support of the treatment process in the organization of medical and psychological care; education of the student of high medical culture, deep morality, mercy, psychological, psychohygienic, psychoprophylactic approach to the patient.

**Main tasks:**

Demonstrate mastery of the principles of medical deontology to prevent iatrogenic and correct the effects of iatrogenic effects.

Use psychohygiene, psychoprophylaxis and basic methods of psychotherapy in medical practice.

To determine psychosomatic and somatopsychic interactions in patients.

To determine the mental state and level of socio-psychological adaptation of patients using the methods of psychological research.

Demonstrate the ability to communicate with colleagues, patients and their relatives, taking into account their psychological characteristics, to promote a healthy psychological climate in the medical environment.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Medical Psychology and Psychiatry, with a course of postgraduate education (Martynova Yuliana)

## **SUMMARY OF THE SELECTIVE COURSE FUNDAMENTALS OF BIOETHICS AND BIOSAFETY**

training of specialists of the second (master's) level of higher education  
qualification of educational "Master of Medicine"  
areas of knowledge 22 "Health"  
specialty 222 "Medicine"

**Summary of the course:** EC 7 "Fundamentals of Bioethics and Biosafety" belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 "Medicine".

**Final control** - credit.

**Objectives:** obtaining basic knowledge covering the moral issues of human activity in medicine and biology, also an analysis of the morality of human actions in the biological-medical field and in health care, in relation to its compliance with moral norms and values, and gaining knowledge on security issues vital functions and preservation health and life man

**Main tasks:** Study of laws, principles and rules regulating the professional behavior of medical workers and researchers, which promotes the safe use of new medical technologies and warns doctors and scientists about the inadmissibility of harm to humans; formation of respect for life and dignity of a healthy and sick person; mastering the skills not only to identify and analyze conflict situations that arise at the intersection of medicine, biology, philosophy and jurisprudence, but also to identify specific ways to resolve them; mastering the skills to be governed by new ethical principles (ie nooethics), to prevent a global environmental crisis; mastering the skills of communication with colleagues, patients and their relatives, taking into account their psychological characteristics, promoting the creation of a healthy psychological climate in the medical environment;

**Competences**, which are formed by the discipline:

- **integral:** specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical thinking of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

- **professional:**

PC12. Ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Counseling skills on family planning and contraception selection.

PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC17. Ability to keep medical records.

PC18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.



PC20. Ability to analyze the activities of a doctor, department, health care institution, take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC21. Ability to take measures to organize and integrate medical care and marketing of medical services.

### **Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate links to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex problems and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 9. Know your social and community rights and responsibilities. To form a sufficient level of legal culture is necessary to maintain the balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for your civic position and activities.

PLO 22. Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide advice on family planning; to select a modern method of contraception for different categories of the population.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of restrictions on life, type, degree and duration of disability with the issuance of relevant documents in a health care institution on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate in the dynamics and in comparison with the average static data indicators of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify

risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; to analyze the state of health of a certain contingent; determine the existence of a link between the state of the environment and the state of health of a certain contingent; to develop preventive measures on the basis of data on the relationship between the state of the environment and the state of health of a certain contingent. Carry out an analysis of the morbidity of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention,

PLO 30. To form rational medical routes of patients; to organize interaction with colleagues in the and other establishments, the organizations and establishments; to apply tools for the promotion of medical services on 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.

**Developer:** Department of General Hygiene and Ecology (MD, Prof. Sergeta I.V.)

## SUMMARY OF THE ELECTIVE COURSE «ENGLISH»

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 8 «English» belongs to subjects of Humanities and socio-economic subjects in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline is aimed at the formation of foreign language professionally oriented communicative competence; establishes basic lexical and grammatical knowledge for the effective performance of the students during the licensing exam “Krok 1”.

**Main tasks:** to form the abilities to understand scientific medical literature in English, to communicate and to write in English, to use basic knowledge of English during the licensing exam “Krok 1” and to develop foreign language communication skills.

**Competences**, which are formed by the discipline:

- **integral:** specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

-**professional:**

PC1. Skills of interviewing and clinical examination of patients.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations

(circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

**Elaborator:** Department of Foreign Languages with Latin and Medical Terminology Course (PhD, associate prof. Alla L. Kondratiuk)

**SUMMARY OF THE ELECTIVE COURSE**  
**ACTUAL ISSUES OF GASTROENTEROLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 9 «Actual issues of Gastroenterology»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline acquaints students with modern views on the main issues of gastroenterology, modern diagnostic techniques, etiological, pathogenetic and syndromic approach to treatment with differential diagnosis with other diseases and prevention of gastrointestinal disorders.

**Main tasks:** formation of the ability to apply the acquired knowledge, skills, abilities and understanding to solve typical tasks of the doctor in the field of health care, the scope of which is provided by certain lists of syndromes and symptoms of gastrointestinal diseases that require special tactics of patients; laboratory and instrumental research, medical manipulations; formation of the ability to apply knowledge of pathology of the gastrointestinal tract in the process of further training and professional activity in accordance with the principles of evidence-based medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 6,7,8,9,10,12,15,16,17,19, 28,30,31,32,37,46,52).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2,6,9,15,19, 20,22,25,34,37,40,42,46,56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101). Assign laboratory and / or instrumental examination of the patient (according to list 4: 6,7,8,9,10,12, 15,16,17,19, 28,30,31,32,37,46,52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis,

laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 21. Perform medical manipulations (according to list 5: 12, 17) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of internal and family medicine (prof. Paliy I.G., associate prof. Chernova I.V. )

## SUMMARY OF THE ELECTIVE COURSE CURRENT ISSUES OF NEPHROLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC10 “ Current issues of nephrology ” belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 “Medicine”.

**Final Control** – credit.

**Objectives:** the discipline lays the foundations of specialized knowledge in the field of nephrology, namely, the acquisition and deepening of skills, abilities and ability to diagnose, differentiate and treat major diseases of the kidney, which are necessary in the professional activity of physicians Professional program specialist.

**Main tasks:** formation of higher education systems of knowledge and skills to determine the etiological and pathogenic factors of diseases of the kidney, the ability to classify and analyze the clinical picture of major diseases of the kidney, the ability to identify different clinical variants and complications of diseases of the urinary system, substantiate and formulate a preliminary diagnosis and plan of examination of the patient, interpret the results of laboratory and instrumental studies, conduct differential diagnosis, substantiate and determine the tactics of the patient, prescribe non-drug and modern drug treatment for diseases of the urinary system, determine the prognosis and efficiency of patients.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.



- PC8. Ability to determine the tactics of emergency medical care.
- PC9. Skills in providing emergency medical care.
- PC11. Skills of medical manipulations
- PC13. Ability to carry out sanitary and hygienic and preventive measures.
- PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.
- PC16. Ability to conduct a medical examination.
- PC17. Ability to keep medical records.
- PC18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

***Program learning outcomes:***

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

**Elaborator:** Department of Internal Medicine #1 (Prof. Mykola Stanislavchuk)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 12 «Biostatistics» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** mastering the theoretical foundations, modern principles of evidence-based medicine and the theoretical foundations of biostatistics; definition and analysis of basic biostatistical indicators and criteria; mastering the methodological and theoretical foundations of the formation of statistical aggregates for further adequate analysis; the ability to evaluate the results of the analysis on individual criteria and in relation to the factors that affect them; understanding of modern concepts and methods of data analysis, materials and methods presented in scientific publications on the chosen topic / specialization.

**Main tasks:** the study of the discipline "Biostatistics" is the acquisition of theoretical knowledge, practical skills and abilities to:

- planning, organization and tactics of statistical research;
- determination of the required volume and method of statistical processing of research data;
- ability to calculate and use various statistical indicators, parameters of statistical aggregates;
- evaluation of the probability of the obtained results;
- mastering the methodological and theoretical foundations of the formation of statistical aggregates for their further adequate analysis;
- establishment of statistical regularities, formulation and testing of statistical hypotheses;
- definition of strategy of search of medical information;
- organization and conduct of meta-analysis;
- definition of methods of graphic representation of results of the statistical analysis;
- statistical methods of data analysis, basic procedures and terminology.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

2. Ability to apply knowledge in practical situations.

3. Knowledge and understanding of the subject area and understanding of professional activity.

4. Ability to adapt and act in a new situation.

7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

17. Ability to keep medical records.

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

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

20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

**-program learning outcomes**

1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

7. Know the basics of information and communication technologies and be able to apply them in professional activities.

10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical

care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**Elaborator:** Department of Social Medicine and Organization of public health services (Palamar I.V.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 13 «Vertebrology»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The purpose of mastering the discipline is to formation students ideas about the main types of massage, mechanisms his effects on the human organism, types of manual therapy and their use in different musculoskeletal pathology, comorbid conditions, functional disorders, which arose as a result of diseases of the musculoskeletal system.

**Main tasks:** 1. To study the basics of the clinical anatomy of the musculoskeletal system; 2. To determine the ethiological and pathogenetic factors of the most common diseases of the musculoskeletal system. 3. Analyzed the typical clinical picture of the most common diseases of the musculoskeletal system. 4. Identify different clinical variants and complications of the most common diseases of the musculoskeletal system. 5. Carry out manual diagnosis of the most common diseases of the musculoskeletal system. 6. Carry out massage and manual therapy. 7. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 17. Ability to keep medical records.

### **-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according



to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)

**SUMMARY OF THE ELECTIVE COURSE  
ACTUAL PROBLEMS OF CLINICAL PATHOMORPHOLOGY  
(GENERAL CONCEPTS)**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Speciality 222 «Medicine»

**Summary of the course:** EC 14 «Actual problems of clinical pathomorphology (general concepts)» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline extends and systematizes knowledge about modern methods of morphological tests, aetiology, pathogenesis and clinical manifestations of diseases, structural bases of complications and consequences of diseases, tumours and precancerous conditions, normative medical documentation. The discipline is necessary for the successful mastering of many clinical disciplines and the formation of clinical thinking, which forms the profile of the master of medicine.

**Main tasks:** mastering the basics of modern morphological test methods, interpretation of aetiology, pathogenesis and clinical manifestations of diseases in combination with morphological changes at different stages of the disease, structural bases of complications and consequences of diseases studied during the course, in-depth study of modern methods of diagnosing tumours and precancerous conditions formulation of clinical and pathological diagnoses according to modern Health Care regulations and acts. Forming the ability to interpret traditional and modern molecular-genetic and pathomorphological tests.

**Competences**, which are formed by the discipline:

**- integral:**

Ability to solve complex problems of the health care system by the speciality "Medicine" in professional activity or in the learning process, which involves realization researches and/or implementation innovations and it is characterized by the uncertainty of conditions and requirements.

**- general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date training.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of the professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

**- professional:**

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**, which are formed by the discipline:

PLO 1. Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4:20-23, 54).

**Elaborator:** department pathological anatomy, forensic medicine and law

(assistant professor Bevz V.O.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 15 «Physical and Rehabilitation medicine»** belongs to  
subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The purpose of the discipline is to form a basic knowledge of the organization, means, forms and methods of medical rehabilitation; to study various aspects of rehabilitation: medical, physical, psychological, professional and socio-economic; to study the principles of kinesitherapy, occupational therapy and other rehabilitation components; understand the indications and contraindications to the appointment of rehabilitation measures and the peculiarities of their implementation.

**Main tasks:** 1. Base International classification of functioning, restriction of vital functions and health; 2. Organize and prioritize, work in a team, and effectively participate in an interdisciplinary team of health professionals. 3. Work with the involvement of a full range of rehabilitation specialists (medical, non-medical and non-medical specialties) and individual rehabilitation specialists in accordance with individual rehabilitation goals and objectives. 4. Lead a multidisciplinary rehabilitation team, coordinate the activities of each of its members and be responsible for the rehabilitation process as a whole. 5. To improve the physical, mental functioning and activity of people with disabilities, to improve their quality of life and ensure full social functioning. 6. Provide emergency care in acute conditions that occur during rehabilitation interventions. 7. Have the practice of expert rehabilitation diagnostics and directly participate in medical and social examination. 8. Participate in monitoring the health of the population and life restrictions, promote the dissemination of knowledge on the organization of rehabilitation care among the population; 9. Identify and properly document the necessary information about the patient, receive information and take into account the views of colleagues and other experts.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 16. Ability to conduct a medical examination.

PC 17. Ability to keep medical records.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to

the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)

## SUMMARY OF THE ELECTIVE COURSE COMMUNICATIVE SKILLS OF A DOCTOR

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 16 «Communicative skills of a doctor» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the subject lays the foundations of specialized knowledge of professional communication of a doctor with a patient and his family, in a medical environment (with colleagues); gives an idea of the factors influencing the establishment and maintenance of contact with the patient in the process of medical-diagnostic interaction, sufficient to achieve therapeutic goals; means of psychological influence (psychological tools) in the process of professional dialogue with the patient (skills of active listening, speaking, techniques of calming, motivating, informing, interpretation, confrontation, expression of empathy); tactics and strategy in typical situations of medical-diagnostic interaction (patient counseling, diagnostics, diagnosis).

**Main tasks:** mastering the basic skills of effective communication based on understanding the types of communication, its components, types of interpretations, possible obstacles; formation of higher education students' holistic understanding of the role, content and importance of professional communication of a doctor in the process of medical-diagnostic interaction; principles of communication with the patient's family; organization of the doctor's working time from the standpoint of time management, the importance of professional development and psychological competencies for the activities performed (self-presentation, "soft-skills"); ways and means of prevention of professional maladaptation and emotional burnout; formation of skills of prevention and overcoming of medical conflicts; development of the ability to confident and highly effective communication. Contributes to the expansion of knowledge about the development of adaptive behavior in typical situations of therapeutic interaction and situations where participants in the treatment process show signs of mental stress; the ability to be aware of one's emotions and to understand other people's feelings.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC 3 Ability to establish a preliminary and clinical diagnosis of the disease.

PC21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

### **-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Medical Psychology and Psychiatry Department with the course of postgraduate education (Ass. Herasymuk Valeriia A. )



## **SUMMARY OF THE ELECTIVE COURSE** **BASICS OF DENTISTRY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 17 «Basics of Dentistry» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The discipline involves the study of therapeutic, orthopedic, surgical and pediatric dentistry in its main sections, with emphasis placed on the study of etiology, pathogenesis, clinics, diagnostics, emergency treatment and prevention of major and most common diseases of maxillo-facial area (MFA).

Special attention is paid to the formation of the student's skills of collecting anamnesis, conducting examination and differential diagnosis of MFA diseases with various clinical course and their complications. It is envisaged to get acquainted with the treatment-and-prophylactic measures, which are most often used in dental practice.

Studying the discipline of "Basics of dentistry" contributes to the formation of a holistic view of the structure and functioning of the organs of the MFA; deepening of theoretical and practical preparation, acquisition of professional practical skills for independent medical activity.

**Main tasks:** The main tasks of studying the discipline of "Basics of Dentistry" are the ability to carry out examination of a dental patient, to diagnose the main symptoms and syndromes of MFA pathologies, to justify and formulate a preliminary diagnosis; analyze the results of the examination and carry out differential diagnosis, formulate a clinical diagnosis of major diseases, identify and identify manifestations of somatic diseases in the oral cavity, determine the principles of complex treatment in the clinic of surgical dentistry, identify different clinical options and complications of the most common diseases and diseases, to know measures of primary and secondary prevention of the most common dental diseases.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

**GC1.** Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

**GC2.** Ability to apply knowledge in practical situations.

**GC3.** Knowledge and understanding of the subject area and understanding of professional activity.

**GC4.** Ability to adapt and act in a new situation.

**GC5.** Ability to make informed decisions; work in a team; interpersonal skills.

**GC6.** Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

**GC7.** Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

**GC8.** Definiteness and persistence in terms of set tasks and responsibilities.

**GC9.** The ability to act socially responsibly and consciously.

**GC10.** The desire to preserve the environment.

**- professional:**

**PC1.** Skills of interviewing and clinical examination of patients.

**PC2.** Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**PC3.** Ability to establish a preliminary and clinical diagnosis of the disease.

**PC5.** Ability to determine the type of nutrition in the treatment of diseases.

**PC6.** Ability to determine the principles and type of treatment of diseases.

**PC7.** Ability to diagnose emergencies.

**PC8.** Ability to determine the tactics of emergency medical care.

**PC9.** Skills in providing emergency medical care.

**PC17.** Ability to keep medical records.

**-program learning outcomes**

**PLO1.** Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

**PLO2.** Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

**PLO3.** Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

**PLO8.** Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

**PLO11.** Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

**PLO12.** Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (4-25, 30-38, 42, 45, 49 according to list 4).

**PLO13.** Identify the leading clinical symptom or syndrome (2, 4, 9, 14, 23-24, 46, 47, 51, 55 according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170, 172, 173, 174, 177, 187-201 according to list 2). Assign laboratory and / or instrumental examination of the patient (4-25, 30-38, 42, 45, 49 according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170, 172, 173, 174, 177, 187-201 according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170, 172, 173, 174, 177, 187-201 according to list 2) by making an informed decision and logical analysis.

**PLO14.** To determine the necessary mode of work and rest in the treatment of the disease (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170, 172, 173, 174, 177, 187-201 according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

**PLO15.** To determine the necessary medical nutrition in the treatment of the disease (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170,

172, 173, 174, 177, 187-201 according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

**PLO16.** To determine the principles and mode of treatment (conservative, operative) of the disease (18, 19, 22, 28, 32-36, 57, 63, 66, 74, 117-126, 135, 137, 133, 139, 149, 153, 154, 156, 165, 167, 170, 172, 173, 174, 177, 187-201 according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

**PLO17.** Establish a diagnosis of an emergency (1-35 according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

**PLO18.** To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (1-35 according to list 3) in a limited time with the help of standard schemes.

**PLO19.** Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (1-35 according to list 3) in a limited time with the help of standard schemes.

**PLO21.** Perform medical manipulations (1-3, 5-7, 9-13, 15, 21, 22, 27 according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**PLO26.** Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Course of “Basics of Dentistry” Department of Surgery №2 (PhD, Likhitskyi O.)

## **SUMMARY OF THE ELECTIVE COURSE MILITARY THERAPY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 18 « Military Therapy»** belongs to subjects of professional training in Specialty 222 «Medicine».

Final control - credit.

**Objectives:** the discipline provides an opportunity to obtain specialized knowledge on prevention, diagnosis and treatment of diseases at the stages of medical evacuation in wartime and peacetime. Based on the study of human anatomy, medical biology, histology, cytology and embryology, pathomorphology, physiology, pathophysiology, medicine Physics, Bioorganic and Biological Chemistry, Microbiology, Virology and Immunology, Pharmacology, Toxicology, Clinical Pharmacology and Clinical Pharmacy, Radiology and Radiation Medicine, Propaedeutics of Internal Medicine and integrates with these disciplines. disciplines and the application of knowledge of military therapy in the process of further training and professional activities

**The main tasks:** the formation of higher education in the system of knowledge about the clinic, diagnosis and treatment of various forms of modern combat therapeutic pathology, medical sorting of victims and emergency care for diseases caused by exposure to thermal factors, ionizing radiation, poisoning and poisoning by war poisons. medical and specialized therapeutic care. To get acquainted with the organizational and staffing structure of therapeutic and surgical departments, as well as resuscitation and intensive care units; to get acquainted with the responsibilities of the head of the department, senior resident, doctor on duty. Military therapy builds the ability to interpret traditional standards for the diagnosis and treatment of therapeutic pathology and the latest battlefield medical protocols taught in NATO countries.

**Competences, which are formed by the discipline:**

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the

field of professional activity or field of knowledge and is the basis for original thinking and

research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

**PC 1.** 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC. 10. Ability to carry out medical and evacuation measures.

PC 11. Skills of medical manipulations.

PC 17. Ability to keep medical records

**-program learning outcomes**

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 1-7, 10, 12, 13-19, 20, 25, 26-28, 30-32, 34-36, 40, 42, 43, 46-49).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4: 1-7, 10, 12, 13-19, 20, 25, 26-28, 30-32, 34-36, 40, 42, 43, 46-49) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: №1, 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127-129, 130 ,132, 134, 136-140, 145, 156, 159, 160) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) in a limited time with the help of standard schemes.

PLO 20. Organize medical and evacuation measures among the population and servicemen, in emergency situations, including in the field, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Department of Internal medicine #2 (PhD Sergii Nechyporuk )

## **SUMMARY OF THE ELECTIVE COURSE MILITARY SURGERY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 19 «MILITARY SURGERY»** belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 "Medicine".

**Final control** – differential credit.

**Objectives:** mastering theoretical and practical knowledge of pathogenesis, clinical manifestations, diagnostic methods, staged conservative and surgical treatment of modern war trauma of various origins and different localizations, early and late complications with sorting and evacuation of the wounded, stages and continuity of treatment and rehabilitation process.

**Main tasks:** to ensure the acquisition by students of theoretical knowledge, practical skills and professional skills sufficient for:

- understanding of the essence and features of modern combat trauma of different localizations (mechanical and gunshot wounds, burns, combined radiation and chemical injuries, traumatic illness and wound infection);
- understanding of medical sorting of the wounded, providing them with pre-medical, first medical, qualified and specialized surgical care in the conditions of modern hostilities and peacetime emergencies;
- diagnostics and compilation of algorithms for the treatment of modern gunshot wounds and closed injuries of limbs and joints, skull and brain, spine and spinal cord, chest, abdomen, pelvis and pelvic organs, etc. at the stages of medical evacuation.

**Competences**, the formation of which is facilitated by the discipline: :

### **integral**

Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

### **General**

1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.
2. Ability to apply knowledge in practical situations.
3. Knowledge and understanding of the subject area and understanding of professional activity.
4. Ability to adapt and act in a new situation.
5. Ability to make informed decisions; work in a team; interpersonal skills.
6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.
7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.
8. Definiteness and persistence in terms of set tasks and responsibilities.
9. The ability to act socially responsibly and consciously.

### **professional**

1. Skills of interviewing and clinical examination of patients.
2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
3. Ability to establish a preliminary and clinical diagnosis of the disease.
5. Ability to determine the type of nutrition in the treatment of diseases.
6. Ability to determine the principles and type of treatment of diseases.

7. Ability to diagnose emergencies.
8. Ability to determine the tactics of emergency medical care.
9. Skills in providing emergency medical care.
10. Ability to carry out medical and evacuation measures.
11. Skills of medical manipulations.

**Program learning outcomes**, the formation of which is facilitated by the discipline:

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

IIPH 13. Identify the leading clinical symptom or syndrome (according to list 1: 1.2, 1.5-1.9, 1.12-1.17, 1.19-1.32, 1.35, 1.37-1.40, 1.43, 1.45, 1.46, 1.48-1.52, 1.53-1.56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 8, 10, 17, 22, 42, 54, 63, 72, 74, 75, 97, 122, 133, 135, 141-144). Assign laboratory and / or instrumental examination of the patient (according to list 4: 1, 2, 7, 8, 10-17, 27-33, 42, 46-49) by making an informed decision, by comparison with standards. Carry out differential diagnosis of diseases (according to list 2: 8, 10, 17, 22, 42, 54, 63, 72, 74, 75, 97, 122, 133, 135, 141-144) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, data from laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 8, 10, 17, 22, 42, 54, 63, 72, 74, 75, 97, 122, 133, 135, 141-144) by making an informed decision and logical analysis.

PLO 15. Determine the necessary therapeutic nutrition in the treatment of the disease (according to list 2: 8, 10, 17, 22, 42, 54, 63, 72, 74, 75, 97, 122, 133, 135, 141-144) in the conditions of the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision according to existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 8, 10, 17, 22, 42, 54, 63, 72, 74, 75, 97, 122, 133, 135, 141-144) in the conditions of the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 3, 4, 6, 7, 8, 9, 12, 16, 17, 18, 19, 20, 25, 26, 29, 31, 33, 34, 35) by making an informed decision and assessing the human condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.



PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 3, 4, 6, 7, 8, 9, 12, 16, 17, 18, 19, 20, 25, 26, 29, 31, 33, 34, 35) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 3, 4, 6, 7, 8, 9, 12, 16, 17, 18, 19, 20, 25, 26, 29, 31, 33, 34, 35) in a limited time with the help of standard schemes.

PLO 20 Organize medical and evacuation measures among the population and servicemen, taking into account the existing system of medical and evacuation support.

PLO 21. Perform medical manipulations (according to list 5: 1, 2, 3, 5, 6, 7, 8, 9, 10, 11-15, 17, 20, 21, 22) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:**

Department of Surgery №1 course of urology, Department of Traumatology and Orthopedics

Ass. professor Kryvetskyi V.F. ass. professor Fomin O.O. asisitent Kyrushchuk I.G.

## SUMMARY OF THE ELECTIVE COURSE

### «EMERGENCY AND URGENT MEDICAL CARE»

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 20 «Emergency and urgent medical care» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control**– differential credit.

**Objectives:** To foster knowledge, skills, and competencies in order to diagnose emergencies, perform treatment and evacuation measures, determining the tactics of emergency medical care under any circumstances, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, to make reasonable decision, on the basis of the diagnosis of an emergency under pressure of time in accordance with certain tactics, using standard schemes, to provide emergency medical care.

**Main tasks:** to form in future specialists with higher education the knowledge of diagnostic and treatment tactics and emergency medical care in accordance with existing protocols for emergency medicine, namely: asphyxia, hypertensive crisis, acute respiratory failure, acute poisoning, electric trauma, external bleeding, circulatory and respiratory arrest, coma, fainting, burns, hypothermia, drowning, shock.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 10. Ability to carry out medical and evacuation measures.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

PC 17. Ability to keep medical records.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 8, 26, 38).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 5, 6, 9, 14, 15, 21, 23, 24, 26, 34, 39, 40, 42, 50) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 3: 1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35). Assign laboratory and / or instrumental examination of the patient (according to list 4: 8, 26, 38) by making an informed

decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 3:1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 3:1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35) by making an informed decision and logical analysis.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1, 2, 3, 8, 9, 10, 11, 12, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35) in a limited time with the help of standard schemes.

PLO 20. Organize medical and evacuation measures among the population and servicemen, in emergency situations, including in the field, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.

PLO 21. Perform medical manipulations (according to list 5: 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2.XI: 166, 168, 187, 192, 193, 196, 200, 201) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (according to list 2.XI: 166, 168, 187, 192, 193, 196, 200, 201), primary anti-epidemic measures in the center of infectious disease.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between

the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Department Disaster Medicine and Military Medicine (ass. Prof. M.V. Matvichuk, ass. Prof. N.D. Korolova)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 21 «Tropical diseases (for foreign students)»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The discipline lays the foundations of specialized knowledge to understand the causes and mechanisms of tropical diseases, etiological factors, mechanisms and factors of their transmission, the main links of pathogenesis, patterns of modern disease, identifying relationships between clinical features and the state of the immune system, complications, complicating their course, the principles of diagnosis and treatment of this category of patients in the field of evidence-based medicine.

The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** to teach foreign students to carry out diagnosis of tropical diseases in time, perform their treatment and prevention.

It forms the ability to interpret traditional and new specific (virological, bacteriological, parasitological) diagnostical procedures used to diagnose infectious diseases in countries with tropical climates, monitoring epidemiological analysis, preventive measures to prevent tropical diseases, the choice of treatment tactics etiotropics.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

#### **-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4-20, 21, 26, 29-40, 42, 44, 46-49).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2, 3, 6-7, 9-11, 14-17, 19-26, 28-32, 34-37, 40-42, 47, 49, 51-56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 21, 26, 28, 32-36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4-20, 21, 26, 29-40, 42, 44, 46-49) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 1, 26, 28, 32-36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 1, 26, 28, 32-36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 1, 26, 28, 32-36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 1, 26, 28, 32-36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 3-5, 7, 8, 9, 16, 18-20, 23, 27, 31, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 3-5, 7, 8, 9, 16, 18-20, 23, 27, 31, 35) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1-5, 7, 8, 16, 18-20, 22, 23, 24, 27, 31, 35) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5: 1-5, 8, 10-14, 15, 17, 20-21) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2: 26, 28, 32-36, 59, 71, 82, 92, 118, 166-203) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry



out detection and early diagnosis of infectious diseases (according to list 2: 28, 35-36, 71, 166-203), primary anti-epidemic measures in the center of infectious disease.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of Infectious Diseases with the Course of Epidemiology (Prof., PhD Moroz L. V.)

## **SUMMARY OF THE ELECTIVE COURSE FUNDAMENTALS OF TITRIMETRIC ANALYSIS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course:** EC 22 «Fundamentals of titrimetric analysis» belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

### **Final control - credit.**

**Objectives:** the discipline contributes to the formation of higher education students' system of knowledge and practical skills on the theoretical foundations and principles of titrimetric research methods; ability to choose the appropriate method of analysis and quantify the content of substances in solutions, including biological objects, using titrimetry.

**Main tasks:** students gain knowledge on the theory and practice of titrimetric analysis, its application in medicine, sanitary and hygienic practice, research, acquaintance of higher education students with various methods of titrimetric analysis, the formation of practical skills with analytical utensils, techniques of volumetric analysis, application of titrimetric methods to the analysis of biological and medical objects.

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

### **Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Melnyk A.V.)

## **SUMMARY OF THE ELECTIVE COURSE** **SURFACE PHENOMENA IN BIOLOGY AND MEDICINE**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 23 «Surface phenomena in biology and medicine»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control** - credit.

**Objectives:** the discipline contributes to the formation of higher education students' system of knowledge and practical skills on the basics of physicochemical processes that take place in the surface layer, the basics of chromatographic methods of analysis and the principles of adsorption therapy; lays the basic concepts of surface tension and surface activity, sorption processes, including adsorption on the surface of liquid-gas, liquid-liquid, adsorption on solid sorbents and their biomedical value.

**Main tasks:** to form in the applicant of higher education theoretical ideas about surface phenomena, surface tension, adsorption, surfactants; learn to interpret the physicochemical phenomena of adsorption in connection with their biological function, as well as apply the acquired knowledge to understand the role of adsorption processes in the life of the organism and biomedical research.

**Competences**, which are formed by discipline:

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general:*

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- *professional:*

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Melnyk AV)

**SUMMARY OF THE ELECTIVE COURSE**  
**EFFICIENT COMMUNICATION AS INDICATOR OF PRODUCTIVE**  
**INTERACTION BETWEEN DOCTORS AND PATIENTS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 25 «Efficient communication as indicator of productive interaction between doctors and patients» belongs to Humanities and socio-economic subjects in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to promote speech and communicative competences of prospective healthcare specialists; to master efficient communication techniques, empathy, and the rules of speaking etiquette; to develop the skills of optimal verbal behaviour in professional environment. The subject is directed on raising the quality of medical services by the means of developing the students' speech competence.

**Main tasks:** to set a combination of knowledge, habits and skills maintaining efficient social and professional communication; to master efficient interaction techniques, empathy, and the rules of speaking etiquette in process of verbal and/or written communication; to train language patterns and techniques helping medical specialists find solutions to possible conflicts, turn patients down, and properly exit long-lasting conversations; to master doctor-patient phone call algorithms.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

**Elaborator:** Ukrainian language and culture Department (Ass-prof. Kraievska H.P.)

## SUMMARY OF THE ELECTIVE COURSE

### POLITICAL SCIENCE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 26 «Political Science»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** students master the theoretical foundations of political science, the formation of a holistic view of the political process of society, the formation of political consciousness of future professionals.

**Main tasks:** mastering by students of theoretical bases of modern political science; formation of future specialists in medical specialties holistic worldview, developed civic political culture, active political position, ability to objectively and critically evaluate vital social information, navigate the complex diversity of modern civilization and national political processes, apply the knowledge in practice.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. To establish appropriate connections to achieve goals. To be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. To form ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to

communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Trukhmanova S. L.)

## SUMMARY OF THE ELECTIVE COURSE

### HISTORY OF WORLD CULTURE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 27 «History of world culture» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** acquaintance with the main theoretical principles of culture and cultural heritage of specific historical and cultural epochs, awareness of the unity of cultural diversity of the world, the importance of culture in the life of subjects and humanization of social relations, understanding the trends of modern sociocultural transformations in world culture. worldview of future professionals

**Main tasks:**

- to get acquainted with the theoretical foundations of culture, the main cultural heritage of historical and cultural epochs and patterns of historical and cultural development;
- to form the ability to systematize, generalize, critically comprehend and adequately evaluate the accumulated cultural experience;
- to ensure awareness of the complex processes of modern cultural and artistic life of the world;
- to educate students to respect the spiritual achievements of mankind, to develop skills of tolerant attitude to ethno-national and social diversity of cultural forms of modern human space;
- formation of moral and aesthetic worldview of future doctors, the ability to formulate and actively defend their own point of view, the system of aesthetic values and priorities;
- to use cultural values, works of art culture and the received knowledge at studying of other disciplines, in professional and social activity.

**Competences**, which are formed by the discipline:

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general:*

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**



PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Trukhmanova S. L.)

## SUMMARY OF THE ELECTIVE COURSE

### MEDICINE AND ART

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 28 «Medicine and art»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to explain the interaction of medicine and art through the union of intellectual and creative human activity; obtaining a general systemic vision of the development of medicine, including with the assistance of genres of art culture; formation of students' ability to see and understand a person (patient) as a person through works of art culture, through works of art culture to promote the formation of a healthy society.

**Main tasks:** to prepare a medical specialist who is able to understand medicine as part of the universal cultural process and apply the achievements of world art culture in the healing process; to promote understanding of prospects of development of culture and art, as one of ways of formation of psychologically healthy society; to activate the ability to understand and interpret works of art culture; personal artistic and aesthetic development of students, the formation of worldviews and competencies in the field of art culture, education of the need for creative self-realization and spiritual self-improvement in the process of mastering the values of cultural and artistic heritage

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication

of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Trukhmanova S. L.)

## SUMMARY OF THE ELECTIVE COURSE

### Economics and health care financing

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC29 «Economics and health care financing» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation of a system of knowledge about the essence of economic processes, financial relations, formation of economic policy in the field of health care

**Main tasks:** Studying the principles of economic life of society; disclosure of patterns of development of economic and financial systems, models of economy of medical institutions which are necessary for understanding the mechanism of functioning of medical institutions in market relations

**Competences**, which are formed by the discipline:

- *integral*: Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general*:

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- *professional*:

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T. V.)

## SUMMARY OF THE ELECTIVE COURSE

### MARKETING IN PHARMACY AND MEDICINE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC30 «Marketing in pharmacy and medicine» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation of a modern system of views and special knowledge in the field of marketing, acquisition of practical skills for the promotion of medical services taking into account the needs of the population and the effective operation of health care and pharmacy

**Main tasks:** To form the theoretical foundations of modern marketing with the rational use of specialized knowledge in the field of health care management, practical skills and abilities in planning, implementation, analysis and control of marketing activities in medical and pharmaceutical structures

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T.V.)

## SUMMARY OF THE ELECTIVE COURSE

### STATISTICS IN HEALTH CARE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC31 «Statistics in health care» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation of understanding of generalization and analysis of medical, ecological and clinical data, practical skills of work with statistical information.

**Main tasks:** Mastering the necessary knowledge, skills and acquiring competencies in research, analysis and evaluation of public health indicators, organization, resources and activities of the health care system, development of evidence-based medicine recommendations for prevention and elimination of harmful effects on health and improvement the organization of medical care and public health.

**Competences**, which are formed by the discipline:

- *integral*: Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general*:

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- *professional*:

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

- **program learning outcomes**



PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T.V.)

## SUMMARY OF THE ELECTIVE COURSE

### INSURANCE RELATIONS IN HEALTH CARE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 32 «Insurance relations in health care» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** To form a system of basic knowledge in the field of insurance relations in health care.

**Main tasks:** To master the conceptual principles of insurance medicine; learn to make effective management decisions based on the experience of health insurance; formation of financial and analytical approach of the future specialist to management decisions on the use of certain types of insurance.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T.V.)

**SUMMARY OF THE ELECTIVE COURSE**  
**PROJECT MANAGEMENT IN THE FIELD**  
**OF MEDICINE AND PHARMACOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC33 «Project management in the field of medicine and pharmacology»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formulation of management mission, methodology for successful project management.

**Main tasks:** Gaining knowledge of the methodology of project management and organizational support of project implementation, gaining practical skills in developing, implementing and evaluating the effectiveness of project solutions.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Vakar T.V.)

## **SUMMARY OF THE ELECTIVE COURSE** **MEDICAL MEMBRANOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course:** EC 34 «Medical membranology» belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control** - credit.

**Objectives:** Formation of special professional competencies aimed at mastering modern ideas about the structure and functions of biological membranes, membrane-dependent biochemical processes in the human body, the molecular basis of membrane pathology and their role in disease development. The discipline is a link between theoretical and clinical disciplines that forms the profile of the Master of Medicine.

**Main tasks:** acquisition by students of knowledge, skills and abilities in the field of biochemistry, formation of a system of knowledge about the structure, properties and functions of biological membranes, the role of protein-protein, lipid-lipid and protein-lipid interactions in membranes; biochemical mechanisms of membrane transport, the value of translocases – a new 7th class of enzymes (2018); the role of membranes in bioenergy, molecular basis of biomembrane pathology; methods of laboratory diagnosis of cell membrane pathology (traditional and new biochemical markers).

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Zaichko N.V.)

## **SUMMARY OF THE ELECTIVE COURSE BIOCHEMISTRY OF INFLAMMATION**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 35 «Biochemistry of inflammation»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control** - credit.

**Objectives:** the discipline lays the foundations of specialized knowledge of the basic biochemical mechanisms of inflammation, chemical nature, structure, functions and metabolism of inflammatory mediators, molecular mechanisms of action of inflammatory mediators and anti-inflammatory drugs, inflammation regulation, principles of laboratory diagnosis of inflammation, common and latest laboratory markers of inflammation (procalcitonin, presepsin, tol-like receptors, gas mediators). The discipline is a link between theoretical and clinical disciplines that forms the profile of the Master of Medicine.

**Main tasks:** formation system of knowledge and practical skills in higher education applicants about molecular mechanisms of the inflammatory process, pathobiochemical features of stages and types of inflammation; structure, biosynthesis and functions of low molecular weight mediators of inflammation, types of acute phase proteins and their biological role, values of nuclear transcription factors, heat shock proteins (HSP), cytokines, growth factors, family of tol-like receptors (TLR) in the development of inflammatory processes; understanding the role of biologically active gas mediators in the mechanisms of inflammation (NO, H<sub>2</sub>S, CO), the molecular basis of anti-inflammatory action of glucocorticoids, nonsteroidal anti-inflammatory drugs, biological therapies, acquaintance with traditional biochemical and latest methods of laboratory diagnosis of inflammatory processes.

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.



**Elaborator:** department of Biological and General Chemistry (MD, prof. Zaichko N.V.)

## **SUMMARY OF THE ELECTIVE COURSE** **BIOCHEMISTRY OF THE HEMOSTASIS SYSTEM**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 36 «Biochemistry of the hemostasis system»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control** - credit.

**Objectives:** the discipline lays the foundations of specialized knowledge of the basic biochemical mechanisms of the hemostasis system, chemical nature, structure, functions of hemocoagulation and fibrinolysis factors, molecular mechanisms of action of activators and inhibitors of blood clotting, skills and abilities of laboratory assessment of various parts of the hemostasis system, including aggregometry. The discipline is a link between theoretical and clinical disciplines that forms the profile of the Master of Medicine.

**Main tasks:** formation of a system of knowledge in higher education applicants about molecular mechanisms of hemocoagulation and fibrinolysis, structure, mechanisms of activation and function of vitamin K-dependent and vitamin K-independent factors of the hemostasis system, understanding of the molecular basis of blood clotting activators and inhibitors, biological significance of antithrombin III, protein C and S in the mechanisms of blood coagulation, biochemical basis of action of antiplatelet and anticoagulant agents, diagnostic value of D-dimer, soluble fibrin-monomer complexes (SFMC), etc .; acquaintance with traditional and new methods of laboratory diagnostics of disorders in different parts of the system of hemostasis and fibrinolysis. Forms the ability to interpret traditional and new biochemical studies used to diagnose disorders of the hemostasis and fibrinolysis, monitoring of the hemostasis system in various pathological conditions, under the action of drugs.

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Zaichko N.V.)

## **SUMMARY OF THE ELECTIVE COURSE** **BIOCHEMISTRY OF NUTRITION**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 37 «Biochemistry of nutrition»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control - credit.**

**Objectives:** Formation of special professional competencies aimed at mastering modern representations of biochemical processes related to the receipt and digestion of nutrients in the body for its energy and structural components to realize any physiological function. The discipline is a connecting link between theoretical and clinical disciplines that forms the profile of the Master of Medicine.

**Main tasks:** acquisition by students of knowledge, skills and abilities in the field of biochemistry of rational nutrition; formation of a system of knowledge about macronutrients and micronutrients, their nutritional value, biochemical mechanisms of digestion, absorption and elimination; biochemical role of microelements, types and causes of microelementosis; traditional and new biochemical markers for assessing the nutritional status and disorders of nutrient metabolism in the human body; the concept of food additives and their importance in medicine.

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Zaichko N.V.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 39 «Neurophysiology»** belongs to subjects of natural science (fundamental) training Specialty 222 «Medicine».

**Final Control**– credit.

**Objectives:** the goals of neurophysiology are to obtain sufficient knowledge to interpret the course of the main physiological processes in the nervous system and mechanisms of regulation of functions in different conditions of the body's stay; to understand the age characteristics of the nervous system functions and the specifics of their regulation; for the formation of ideas about neurophysiological mechanisms of behavioral reactions; for interpretation of mechanisms and regularities of functioning of the nervous system according to the results of general clinical, biochemical, equipment research methods in order to use the knowledge gained in the study of the following medical disciplines, and in future professional activities. The study of neurophysiology is of particular importance for laying the basics of knowledge on nervous diseases. In addition, the purpose of the discipline is to form an understanding of the concept of health, healthy lifestyle and prevention of impaired functions in the process of life.

**Main tasks:** the task of neurophysiology as a science is a systematic approach to the study of the essence of physiological processes in the nervous system, the functions of nerve cells, fibers, synapses, CNS departments, nerves, peripheral ganglia. Students should learn and explain the physiological basis of methods for studying the functions of the nervous system in an experiment on animals and in the study of functions in humans in different physiological states. To describe the mechanisms of reflex regulation of functions and the role of the links of the reflex arc as components of the contour of biological regulation in ensuring the adaptive reaction of the body. To analyze the role of different levels of the central nervous system in ensuring the adaptive reaction of the body, in particular, to draw conclusions about the state of the motor systems of the body, which combine structures of different levels of the central nervous system and their organization. Explain the mechanisms of integrative activity based on the analysis of the role of different structures of the new cerebral cortex.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

**- professional:**

PC19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Department of Normal Physiology, doctor of Medicine, prof. Yoltukhivskyy M.V.

SUMMARY OF THE ELECTIVE COURSE  
**INFECTIOUS IMMUNOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

Summary of the course: EC 40 «Immunobiological preparations » belongs to subjects of professional training in Specialty 222 «Medicine».

Final Control – credit.

**Objectives:** to get knowledge about the main modern mechanisms of formation of the immune response of the human body to bacterial, viral, fungal, protozoal infections, as a significant component of homeostasis.

**Main tasks:** to acquaint students with the basic concepts of infectious immunity mechanisms ; formation of deep, fundamental knowledge of the development of the immune response in acute, chronic infectious diseases, purulent-inflammatory processes caused by pathogenic and opportunistic microorganisms; mastering the basic principles of using methods for the diagnosis of infectious diseases, assessment of immunity.

**Competences, which are formed by the discipline:**

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 2. Ability to apply knowledge in practical situations.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy....

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to

communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

**Elaborator:** Department microbiology department (prof. Kovalchuk Valentin. P, ass-prof. Krizhanovska Alla V., ass-prof. Makatz Evgenia F.)



## SUMMARY OF THE ELECTIVE COURSE HUMAN EMBRYOLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC41 «Human embryology» belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final Control** – credit.

**Aims:** Improving the educational level of students on the development and formation of organs and systems, the main provisions of embryological human development according to the latest data & research.

Formation the ability to apply the acquired knowledge, skills, abilities and understanding in the process of further training to solve typical tasks of a doctor in the field of health care.

**Objectives:**

- To study the prenatal development of organs and systems, their mutual location in the body of embryo and fetus.
- To acquire the basic principles of blood supply and innervation of organs and systems based on the development of the organism.
- Consider clinical anatomy and embryology and their relationship.
- Apply applied methods using comparative anatomy.

**Competences**, which are formed by the discipline:

- *integral*: Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general*:

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4:44-50).

**Elaborator:** Department of Human anatomy (Kondor Yu.Yu.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 42 «Radiological anatomy»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** mastering by the each student of radiation anatomy basic knowledges from the stand point of natural science ideas about the structure and function of the human body as a whole. Radiological anatomy on the grounds of physical basis of radiological diagnostic methods and normal anatomy knowledges, ability to use acquired knowledge in further study of other basic medical sciences and practice doctor.

**Main tasks:** acquire a systematic approach to understanding the shape, the structure and the position of the human organs in unity with the functions by using the diagnostic technologies. Demonstrate and describe the structural elements of the normal anatomical structure of human on diagnostic radiological images, determine the topographic and anatomical relationships of organs and systems on diagnostic radiological images, be able to assess age, gender and individual features of human organs on radiological images using the Latin anatomical terminology and Ukrainian equivalents according to the requirements of the international anatomical terminology (Sao Paulo, 1997; Kyiv, 2001).

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC.1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC.2. Ability to apply knowledge in practical situations.

GC.3. Knowledge and understanding of the subject area and understanding of professional activity.

GC.4. Ability to adapt and act in a new situation.

GC.5. Ability to make informed decisions; work in a team; interpersonal skills.

GC.6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC.7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC.8. Definiteness and persistence in terms of set tasks and responsibilities.

GC.9. The ability to act socially responsibly and consciously.

GC.10. The desire to preserve the environment

- **professional:**

PC. 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**-program learning outcomes**

PLO.1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO.2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO.3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO.4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO.5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO.6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO.7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO.8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO.10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO.12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 44-50).

**Elaborator:** Department of Human anatomy ( Danylevych V.P.)

## SUMMARY OF THE ELECTIVE COURSE

### AGE ANATOMY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC43 «Age anatomy»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The discipline provides basic knowledge about anatomical and physiological features of the human body of different age groups, which will allow doctors to assess the state of its health correctly, and in the presence of the disease to diagnose and provide adequate treatment. The discipline should provide the specialists of physical education and sports with knowledge about the patterns of development and attenuation of body functions at different ages, features of the transition from one stage of development to another, finding ways and methods to influence the human body for creating optimal conditions for its existence along the whole life.

**Main tasks:** 1. To study the anatomical and physiological features of the body of newborns and infants, which will allow family doctors to monitor the normal development of the child, correct it, give advice to parents on child care and prevention of its diseases.

2. To study the anatomical and physiological features of the body of children in different periods of childhood because taking into account the individual psycho-functional and age characteristics of the child's body is important not only during treatment, but also in planning and organizing the educational process of preschool and school.

3. To study the anatomical and physiological features of the body of adolescents when secondary sexual characteristics develop; proportions, body shapes acquire the characteristics of an adult; an intensive psychological development is provided; the character and individuality of the child are formed. In the pathology of children during puberty, psychoneuroses, functional disorders of the cardiac activity and autonomic nervous system, disfunction of the endocrine and gonadal glands, chronic diseases of the digestive tract are mostly observed.

4. To study the anatomical and physiological features of the human body in adulthood in order to teach it skills to maintain and strengthen health; to carry out individual correction of the regime depending on living and working conditions, state of health, type of higher nervous activity.

5. To study the anatomical and physiological features of the body of the elderly. Knowing the structural and functional changes of the body in the process of aging, doctors can give some advice to patients regarding the organization of life and work for active longevity and prevention of premature aging.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4:44-50).

**Elaborator:** Department of Human anatomy (Logvinenko V.A.)

## SUMMARY OF THE ELECTIVE COURSE

### ETHICS AND DEONTOLOGY IN MEDICINE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 44 «Ethics and Deontology in Medicine» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the subject lays the foundations of knowledge of analytical reasoning rules, the use of laws and principles of correct thinking, forms the future specialist's culture of thinking. The discipline explores a way to gain new knowledge in science, professional and everyday thinking.

**Main tasks:** form intelligent worldview of future healthcare professionals, professional thinking based on the principles of morality and deep professional knowledge and skills. Master the theoretical knowledge necessary for development of optimum behavior model at communication with patients. Provide students with up-to-date information on the legal regulation of a doctor's professional activity. Acquire appropriate skills of professional team communication.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.



PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)

## SUMMARY OF THE ELECTIVE COURSE

### ACADEMIC DECENCY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 45 «Academic Decency» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to form a system of knowledge about the essence and social significance of academic integrity, the specifics and structure of the rules and norms of academic writing. Master the basic principles and laws that regulate the observance of academic integrity of the physician professional activity.

**Main tasks:** master the basics of academic integrity in today's world; recognize and avoid types of academic dishonesty; develop academic writing skills.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)

## SUMMARY OF THE ELECTIVE COURSE

### PHILOSOPHY OF LOVE AND MERCY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 46 «Philosophy of Love and Mercy» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to gain knowledge of fundamental, universal, humanistic, moral principles of Love and Mercy, Faith and Hope, Goodness and Justice, etc.; to form a system of values, semantic orientations and practical skills of behavior of the future doctor in the field of professional (professional) activity, in the spheres of personal and public life.

**Main tasks:** understand and assimilate the essence, meaning, stages of development of human ideas about fundamental humanistic categories, about love and mercy and their practical significance in the life of a doctor; learn to distinguish love and pseudo-love, love and hate, mercy and cruelty (atrocities), compassion and pity, etc.; develop skills of compassionate attitude to patients and other people.

**Competences**, which are formed by the discipline:

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- *general:*

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to

communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)

**SUMMARY OF THE ELECTIVE COURSE**  
**AESTHETICS AND THEORY OF ART**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 47 «Aesthetics and Theory of Art» belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to form a system of knowledge about the essence, specificity and structure of aesthetic relations between people. To form knowledge about aesthetic relations as a way of life. To explain art as a sensory-spiritual form of human self-expression. To teach to apply the basic semantic values, and aesthetic categories, unity of aesthetic values of universal, regional, national, social group. To explain their specifics in the physician professional activity.

**Main tasks:** use knowledge of aesthetic patterns in the analysis of specific phenomena of reality, works of art; express their impressions through aesthetic terminology; know the difference in beautiful and ugly, comic and tragic, art and pseudo-art, etc.; identify people aesthetic attitude to the world among the practical, scientific, religious, moral, political, legal; to perceive and evaluate aesthetically the phenomena of various spheres of reality and art, including the work of doctors, pharmacists, dentists, etc.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)

## SUMMARY OF THE ELECTIVE COURSE

### Methods and Technology of the Student's Scientific Work Preparation

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 48 «Methods and Technology of the Student's Scientific Work Preparation»** belongs to Humanities and socio-economic subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** demonstrate theoretical foundations of the student's research activity. To provide guidelines for the implementation of scientific, educational and research work, abstracts, scientific articles specific types, etc.

**Main tasks:** show knowledge of basic skills in the formation of the topic, subject, purpose, main tasks and sections of research; be able to analyze the relationship between the relevance of scientific research and modern science, world culture, practical and theoretical medicine; acquire knowledge and methodological skills in preparing and writing scientific papers; use knowledge and methodological skills to write and defend students' research works.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 9. The ability to act socially responsibly and consciously.

- **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**Elaborator:** Philosophy and Social Sciences Department (Ass-prof. Bednarchyk T. R.)



## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 49 «MODERN PROBLEMS OF MOLECULAR BIOLOGY»** belongs to subjects of natural science (fundamental) training of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline lays the foundations of specialized knowledge of the basic patterns of manifestations of the human at the molecular and cellular levels. The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** the formation of higher education students' system of knowledge about the molecular basis of the general biological laws in the course of human ontogenesis; understanding of the molecular-genetic basis of the development of hereditary and multifactorial diseases and prospects for the application of the achievements of molecular biology in practical medicine; acquaintance with traditional and modern methods of molecular biology; formation of the ability to interpret modern scientific research in the field of molecular medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1 Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2 Ability to apply knowledge in practical situations.

GC3 Knowledge and understanding of the subject area and understanding of professional activity.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

**Elaborator:** Department of Medical Biology (Doc.of Biol.Sci., Sen.Res. Shkarupa V.M. )

## **SUMMARY OF THE ELECTIVE COURSE CLINICAL BIOCHEMISTRY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course: EC 50 «Clinical biochemistry»** belongs to subjects of natural science (fundamental) training in Specialty 222 «Medicine».

**Final control** - credit.

**Objectives:** Formation of a system of knowledge and practical skills in higher education applicants about basic laws of chemical composition and metabolism in humans in normal and in pathology, the principles of clinical and biochemical diagnosis of various pathological conditions. The discipline is a link between theoretical and clinical disciplines that forms the profile of the Master of Medicine.

**Main tasks:** knowledge of pathobiochemical aspects of enzymopathies, endocrinopathies, vitamin deficiency; acquaintance with the theoretical foundations of clinical biochemistry and laboratory diagnosis of the most common pathological conditions: diseases of the liver, kidneys, cardiovascular system, gastrointestinal tract, etc.; mastering practical skills of assessing the level of biomolecules and physiologically active substances for the diagnosis of pathological processes.

**Competences**, which are formed by discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO12. To evaluate information about diagnosis using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** department of Biological and General Chemistry (MD, prof. Zaichko N.V., prof. Melnyk A. V.)

**SUMMARY OF THE ELECTIVE COURSE**  
**Essentials of pharmacokinetic and pharmacodynamic of drugs**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 51 «Essentials of pharmacokinetic and pharmacodynamic of drugs» belongs to subjects of professional training in Specialty 222 «Medicine».**

**Final Control** – credit.

**Objectives:** Formation of students' theoretical knowledge and practical skills on the basic concepts and parameters of pharmacokinetics and pharmacodynamics to justify the rational and safe use of drugs for human health. This will contribute to the future quality of professional duties performance such as the rational choice of drug, the development of pharmacotherapy regimens, monitoring the effectiveness and safety of pharmacotherapy, prediction, and prevention of adverse drug reactions.

**Main tasks:** formation of a system of knowledge of higher education in the ways of introduction of drugs into the human body and ways of their excretion, distribution, deposition and metabolism; basic principles and mechanisms of action of drugs; their pharmacological effects; factors influencing the pharmacokinetics and pharmacodynamics of drugs in both single and combined administration; side effects of drugs and ways to prevent them. The study of the discipline forms the ability to determine the design and optimal dosage regimen of pharmacotherapy depending on the characteristics of the disease, age, body weight or body surface area of the patient, the presence of comorbidities; assess the benefit / risk balance of drugs and make judgments about the possibility of adverse drug reactions in order to prevent them.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population

-**program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication

of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency in a limited time with the help of standard schemes.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Department of Pharmacology (MD, Prof. Voloshchuk N.I.)

## SUMMARY OF THE ELECTIVE COURSE

### CLINICAL MICROBIOLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 52 «Clinical microbiology.» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline gives deep specialized knowledge about human body microbiocenosis disorder, the mechanisms of microbial complications development in somatic patients; biological properties of opportunistic microorganisms and pathogens causing nosocomial infections; and discovers etiopathogenesis of nosocomial and opportunistic infections depending on their location; modern diagnostic methods, principles of microbial complications treatment and methods of their prevention. Studying of the discipline is necessary for the implementation of effective interaction between masters of medicine and clinical microbiologists.

**Main tasks:** to form knowledge about the current causes of opportunistic infections, their spread in hospital setting, and significance in human pathology; about biological properties of opportunistic pathogens and patterns of their interaction with the human body, measures to prevent them in hospitals; to deepen knowledge of such infections` pathogenesis, features of the immune response and the course of microbial complications in violation of the immune system of the human body; to choose the right methods of laboratory diagnostics, and interpret their results and diagnostic value; to choose adequate methods to control distribution of hospital strains in a medical institution. As a result of studying the discipline, the student will master the methods of proper sampling for bacteriological / virological research from different loci of the human body, will be able to choose an adequate method of laboratory diagnostics depending on the location and course of microbial complications; to evaluate the diagnostic value of the results of laboratory research and to choose the most rational etiotropic treatment, to evaluate the results of sanitary-bacteriological research of medical and diagnostic equipment from the point of view of epidemiological safety.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

CG 7. Skills in the use of information and communication technologies; ability to search, process and analyze information

- **professional:**

PC 2 Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 42).

**Elaborator:** Department microbiology (ass.-prof. Vovk Irina M., ass.-prof. Ivanova Svitlana A., ass.-prof. Rymsha Olena V.)

## **SUMMARY OF THE ELECTIVE COURSE IMMUNOBIOLOGICAL PREPARATIONS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

Summary of the course: EC 53 «Immunobiological preparations » belongs to subjects of professional training in Specialty 222 «Medicine».

Final Control – credit.

**Objectives:** acquaintance with the main groups of immunobiological preparations registered in Ukraine; formation of a holistic and systemic understanding of the creation of post-vaccination immunity; formation of knowledge about the importance and methods of creating immune protection; mastering the stages of production of vaccines, immune sera, interferons and interferonogens, immunomodulators, control of quality.

**Main tasks:** training of specialists in various specialties who have knowledge and skills on the principles of use, indications for the use of immunobiological preparations for immunoprophylaxis, immunotherapy and immunocorrection. To deepen students' knowledge of infectious disease protection by creating post-vaccination immunity, to acquaint with drugs for immunization, methods and timing of vaccination in Ukraine.

Competences, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 6. Ability to determine the principles and type of treatment of diseases....

PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

-**program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy....

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (according to list 2), primary anti-epidemic measures in the center of infectious disease.

Elaborator: Department microbiology department (prof. Kovalchuk Valentin. P, ass-prof. Prokopchuk Zoya M, ass-prof. Fomina Nadiya S.)



## SUMMARY OF THE ELECTIVE COURSE «MEDICAL ENGLISH»

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 54 «Medical English» belongs to subjects of Humanities and socio-economic subjects in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline is aimed at the formation of foreign language professionally oriented communicative competence; establishes basic lexical and grammatical knowledge for the effective performance of the students during the licensing exam “Krok 1”.

**Main tasks:** to form the abilities to understand scientific medical literature in English, to communicate and to write in English, to use basic knowledge of English during the licensing exam “Krok 1” and to develop foreign language communication skills.

**Competences**, which are formed by the discipline:

- **integral:** specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

-**professional:**

PC1. Skills of interviewing and clinical examination of patients.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

**Elaborator:** Department of Foreign Languages with Latin and Medical Terminology Course (PhD, associate prof. Alla L. Kondratiuk)

**SUMMARY OF THE ELECTIVE COURSE**  
**FUNDAMENTALS OF PREVENTION OF SMOKING, ALCOHOLISM,**  
**DRUG ADDICTION AND SUBSTANCE ABUSE**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 55 «Fundamentals of prevention of smoking, alcoholism, drug addiction and substance abuse»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline lays the foundation for specialized knowledge on painful changes in psyche and behavior in the use of psychoactive substances, nature, pathogenesis, clinic, treatment, prevention, examination, rehabilitation and social aspects of addictions. The course is focused on obtaining modern knowledge on the main problems of prevalence, formation and prevention of addictions; acquisition by students of theoretical knowledge of practical skills of primary diagnostics, treatment, prevention of mental disorders, psychosocial rehabilitation of patients with mental disorders, including those caused by the intake of psychoactive substances required at the primary level of medical care. The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** formation of applicants for higher education basic knowledge of the nature of dependencies and their mechanisms; basic concepts and terminology in addictology, classification of psychoactive substances; the basics of the organization of the narcological service and the current legislation on combating the spread of non-medical use of psychoactive substances; general patterns of dependence on psychoactive substances; etiological factors, pathogenetic mechanisms, types of course and clinical manifestations of alcoholism; interview tactics and management of patients with alcoholism; early and long-term consequences of alcohol consumption; basic principles of medical care for alcoholism and alcoholic psychosis; methods of prevention of alcoholism and disorders associated with alcohol; general characteristics of the main groups of psychoactive substances; diagnosis of addictions to psychoactive substances; complex of etiological factors, pathogenetic mechanisms, types of course, and clinical manifestations of drug addiction and substance abuse; tactics of management of patients with drug and drug addiction; emergency medical care for acute poisoning and mental disorders in patients with drug and substance abuse; methods of prevention of the above disorders. Forms the ability to interpret traditional and modern approaches in addictology, which are used to diagnose mental and behavioral disorders, monitor the spread of addictions and opportunities for their prevention.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

PC 20. Ability to analyse the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

**-program learning outcomes**

PLO 1. Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 7, 8, 13, 14, 16, 17, 30-33, 36, 38, 49).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 13, 16, 26, 32, 34, 35, 38, 40, 44, 45, 50, 53, 54) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 11-16). Assign laboratory and / or instrumental examination of the patient (according to list 4: 7, 8, 13, 14, 16, 17, 30-33, 36, 38, 49) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 11-16) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 11-16) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 11-16) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 11-16) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 10, 12, 15, 20, 21) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 10, 12, 15, 20, 21) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 10, 12, 15, 20, 21) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5: 10, 12) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2: 169, 170, 173-176, 178-181, 183, 186, 187-189, 195, 196, 198, 200-201) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early

diagnosis of infectious diseases (according to list 2: 169, 170, 173-176, 178-181, 183, 186, 187-189, 195, 196, 198, 200-201), primary anti-epidemic measures in the center of infectious disease.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision (according to list 2: 11-16); tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease (according to list 2: 11-16) and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyse the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyse the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care (according to list 2: 11-16), developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

PLO 30. To form rational medical routes of patients with mental and behaviour disorders (according to list 2: 11-16); organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Psychiatry, Narcology and Psychotherapy with PGC (Prof. Rymsha S.V., Ass.prof. Ratsyborynska-Polyakova N.V. )

**SUMMARY OF THE SELECTIVE DISCIPLINE**  
**PSYCHOHYGIENE AND CURRENT PROBLEMS OF UNIVERSITY HYGIENE**

training of specialists of the second (master's) level of higher education  
qualification of educational "Master of Medicine"  
areas of knowledge 22 "Health"  
specialty 222 "Medicine"

**Summary of the course: EC 56 "Psychohygiene and current problems of university hygiene"** belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 "Medicine" .

**Final control** - credit.

**Objectives:** development of hygienic thinking in the future doctor, skills of complex assessment of environmental factors and social living conditions and acquisition of knowledge to determine the consequences of their negative impact on mental health and health of people studying in higher education, development of On this basis, measures aimed at preserving and strengthening mental health, ensuring the harmonious psycho-physiological and mental development of the individual, as well as health-preserving technologies to create a preventive educational space in higher education institutions

**Main tasks :** study of natural and anthropogenic environmental factors and social conditions of life that have a negative impact on mental health and the health of persons enrolled in terms of higher education, scientific study and development of hygienic standards, rules and activities , promoting the maximum use of environmental factors that have a positive impact on the human body, the introduction of developed psycho-hygienic recommendations, rules and regulations in health care practice and verify their effectiveness, forecasting the sanitary situation in the short and long term.

**Competences** , the formation of which is facilitated by the discipline:

- **integral**, with special conceptual knowledge, including modern scientific achievements in the professional field or area of expertise is the basis for original thinking and research, critical thinking problems in the field and on the verge of disciplines

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained .

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 9. The ability to act socially responsibly and consciously .

- **professional :**

PC 1. Skills of interviewing and clinical examination of patients .

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases .

PC 12. Ability to determine the tactics of physiological pregnancy, physiological childbirth and the postpartum period. Counseling skills on family planning and contraceptive selection .

PC 13 . Ability to carry out sanitary and hygienic and preventive measures.

PC 16 . Ability to conduct a performance examination.

PC 17. Ability to maintain medical records .

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information .

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population .

**Program learning outcomes**

PLO1 . Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate links to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex problems and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions .

PLO 3. Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Be responsible for the choice and tactics of communication.

PLO 8 . Know their professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality of the tasks.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it .

PLO 14. Determine the necessary mode of work and rest in the treatment of the disease in a health care facility, outside it and at the stages of medical evacuation on the basis of a preliminary clinical diagnosis

PLO 22. Assess the general condition of the pregnant woman, parturient and parturient in a health care institution on the basis of anamnestic data, general examination, bimanual , external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning consultations; to select a modern method of contraception for different categories of the population.

PLO 23 . To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care) .

PRN26. Determine the presence and degree of restrictions on life, type, degree and duration of disability with the issuance of relevant documents in a health care institution on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard



technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate in the dynamics and in comparison with the average static data indicators of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; to analyze the state of health of a certain contingent; to determine the existence of a connection between the state of the environment and the state of health of a certain contingent; to develop preventive measures on the basis of data on the relationship between the state of the environment and the state of health of a certain contingent. Carry out analysis of morbidity of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Developer :** Department of General Hygiene and Ecology ( MD, Prof. Sergeta IV )

**SUMMARY OF THE ELECTIVE COURSE**  
**MICROBIOLOGICAL FUNDAMENTALS OF ANTIBACTERIAL THERAPY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 57 «Microbiological fundamentals of antibacterial therapy»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** deepening the knowledge of students on the principles of rational antimicrobial therapy, the methodology of effective schemes forming at empirical antibiotic therapy, modern methods of local antimicrobial therapy; formation of the ability to flexibly manipulate existing methods and means of antimicrobial influence in order to increase the effectiveness of treatment at microbial infections and choose the optimal algorithm of antimicrobial therapy based on knowledge about biological properties of pathogens, mechanisms of antimicrobial drugs action and monitoring results under circumstances of global phenomenon of resistance microorganisms spreading.

**Main tasks:** to gain deep knowledge of the biological features of pathogens, causing infections in different systems of human body that may affect sensitivity to chemical influences; to learn modern list of antiviral, antibacterial, antifungal agents of different chemical structure and the mechanism of their action on microorganisms; master the ability to independently determine the sensitivity of pathogens to antibiotics and antiseptics and evaluate the results of laboratory tests; to master the principles of rational antibiotic therapy, to master the knowledge of modern schemes of combined empirical antibiotic therapy; epidemiology of antimicrobial-resistant pathogens, mechanisms of bacterial resistance to antibiotics, ways to overcome antibiotic resistance and the possibility of topical effects on the inflammatory focus using antibiotics and antiseptics and modern methods of local delivery to eliminate the cause of infection.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

CG 7. Skills in the use of information and communication technologies; ability to search, process and analyze information

- **professional:**

PC 6. Ability to determine the principles and type of treatment of diseases.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 7,8,18, 32-36, 64,67, 87, 92, 110,114, 119-121, 126, 166-203, 231) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

**Elaborator:** Department microbiology (prof. Kovalchuk Valentin P., ass.-prof. Nazarchuk Olexandr A., ass.-prof. Kovalenko Irina M.)

## **SUMMARY OF THE ELECTIVE COURSE** **CLINICAL RESEARCH**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 58 «Clinical Research»** belongs to subjects of professional training  
in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to form of a view of the general provisions, deadlines, principles and requirements, evaluation of ethical and moral aspects, processing and analysis of results in clinical trials.

**Main tasks:** formation of higher education system of knowledge on the basis of the Guide for Good Clinical Practice (GCP), the principles of evidence-based medicine, terminology and basic documents of clinical research; rules for planning, conducting, reporting, auditing and completing clinical trials of medicinal products; ethical and moral aspects of clinical trials; the order of notification of side effects and reactions.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 10. Ability to carry out medical and evacuation measures.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 1-8, 10-19, 25-32, 35, 37, 38, 40, 42, 44-50, 52, 54).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2-7, 9,10, 12, 14-17, 19-23, 25-28, 30, 34, 36, 37, 39-43, 46, 47, 49-57) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235). Assign laboratory and / or instrumental examination of the patient (according to list 4: 1-8, 10-19, 25-32, 35, 37, 38, 40, 42, 44-50, 52, 54) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental

examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 1, 4, 5, 9, 13, 14, 16, 18, 19, 21-24, 37-53, 55, 56, 58, 72, 76, 78, 80-82, 85, 87, 90, 91, 94, 95, 98, 100-103, 106, 108-113, 115-118, 124, 127, 129-132, 134, 136-140, 145-146, 149-152, 154, 161-165, 169, 174, 230, 235) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 2-4, 7, 8, 10, 11, 13, 15, 17, 19, 20, 23, 24, 27, 31) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 2-4, 7, 8, 10, 11, 13, 15, 17, 19, 20, 23, 24, 27, 31) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 2-4, 7, 8, 10, 11, 13, 15, 17, 19, 20, 23, 24, 27, 31) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5: 1-4, 10-13, 19-21, 23, 27) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent.

Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 29. Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**Elaborator:** Department of Internal medicine #2 (Prof. Sergii Shevchuk)

**SUMMARY OF THE ELECTIVE COURSE**  
**«CURRENT ISSUES OF DIETOLOGY AND NUTRITIOLOGY»**  
training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 59. "Current issues of dietology and nutritiology" belongs to subjects of professional training in Specialty 222 «Medicine»**

**Final Control**– credit.

**Objectives:** To form theoretical knowledge and acquire practical skills in the basic concepts of dietology and nutritiology to justify the appointment of a rational and safe diet for health and improve the quality of patients life.

**Main tasks:** formation of higher education system of knowledge in the field of rational and dietary nutrition; deepening of practical knowledge and skills on the appointment of preventive and curative nutrition in diseases of various organs and systems; obtaining information on the latest domestic and world achievements in the field of nutrition; orientation skills in various dietary approaches in accordance with the principles of evidence-based medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.



PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 1-7, 10, 12, 13-19, 20, 25, 26-28, 30-32, 34-36, 40, 42, 43, 46-49).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2-7, 9, 10, 11, 15, 17, 19-23, 25, 26-28, 30, 31, 34, 36, 37, 39, 41, 43, 49, 52, 55, 56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according

to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160 ). Assign laboratory and / or instrumental examination of the patient (according to list 4: 1-7, 10, 12, 13-19, 20, 25, 26-28, 30-32, 34-36, 40, 42, 43, 46-49) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127- 129, 130 ,132, 134, 136-140, 145, 156, 159, 160) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: №1, 3-6, 9, 25, 38, 40, 41, 43-49, 51-53, 55, 58, 60, 63-65, 69-71, 76, 80-82, 85, 87, 91, 93, 94, 95, 96, 98, 100, 101, 103, 105, 106, 108, 110, 113, 115, 127-129, 130 ,132, 134, 136-140, 145, 156, 159, 160) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1-9, 11, 12, 14, 18, 19, 20, 22, 24, 25, 26) in a limited time with the help of standard schemes.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy

persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Department of Internal medicine #2 ( Phd. Ass. prof. Liubov Marynych )

**SUMMARY OF THE ELECTIVE COURSE**  
**CURRENT ISSUES OF RHEUMATOLOGY (JOINT DISEASES)**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 60 “Topical issues of rheumatology (joint disease)” belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 “Medicine”.

**Final Control** – credit.

**Objectives:** The discipline lays the foundations of specialized knowledge in the field of rheumatology, namely, acquiring and deepening skills, abilities and ability to diagnose, differentiate and treat major joint diseases that are necessary in the professional activity of a doctor, based on the educational program of a specialist.

**Main tasks:** formation of higher education in the system of knowledge and skills to determine the etiological and pathogenic factors of joint diseases, the ability to classify and analyze the clinical picture of joint diseases, the ability to identify different clinical variants and complications of joint diseases, justify and formulate a preliminary diagnosis and the ability to plan, interpret the results of laboratory and instrumental studies, conduct differential diagnosis, justify and determine the tactics of the patient, prescribe non-drug and modern drug treatment for joint pathology, determine the prognosis and efficiency of patients.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

- PC7. Ability to diagnose emergencies.
- PC8. Ability to determine the tactics of emergency medical care.
- PC9. Skills in providing emergency medical care.
- PC11. Skills of medical manipulations
- PC13. Ability to carry out sanitary and hygienic and preventive measures.
- PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.
- PC16. Ability to conduct a medical examination.
- PC17. Ability to keep medical records.
- PC18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

**Elaborator:** Department of Internal Medicine #1 (Prof. Mykola Stanislavchuk)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 61 «Foundations of manual therapy and massage»**  
belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The purpose of mastering the discipline is to formation students ideas about the main types of massage, mechanisms his effects on the human organism, types of manual therapy and their use in different musculoskeletal pathology the device, comorbid conditions, functional disorders, which arose as a result of diseases of the musculoskeletal system.

**Main tasks:** 1. To study the basics of the clinical anatomy of the 0musculoskeletal system; 2. To determine the etiological and pathogenetic factors of the most common diseases of the musculoskeletal system. 3. Analyzed the typical clinical picture of the most common diseases of the musculoskeletal system. 4. Identify different clinical variants and complications of the most common diseases of the musculoskeletal system. 5. Carry out manual diagnosis of the most common diseases of the musculoskeletal system. 6. Carry out massage and manual therapy. 7. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in manual therapy.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.



PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 17. Ability to keep medical records.

### **-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 62 «Physiotherapeutic agents in medical rehabilitation»**  
belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation in students of a system of theoretical knowledge, practical skills and abilities to use physical factors in their natural or preformed form in order to prevent human health disorders, improve the functional state of the body, general and special performance, features of physiotherapy in medical rehabilitation for maintenance and restoration of health, disruption of vital functions and functioning of patients.

**Main tasks:** 1. to study the concept of physiotherapy as an independent discipline; history of physiotherapy development; physiotherapy methods; place of physiotherapy in medical rehabilitation; 2) the concept of specific and nonspecific reactions of the organism to the physical factor in certain conditions of the organism; 3) clinical and physiological effect of physiotherapeutic procedures on the human body; have an idea of electrical, magnetic, optical, mechanical and thermophysical properties of biological tissues; 4) about new and traditional methods of physiotherapy; 5) general characteristics of electrotherapy methods; biophysical bases and features of electrotherapy methods; 6) general characteristics of phototherapy methods; biophysical bases of phototherapy; features of methods of infrared irradiation, ultraviolet irradiation, laser therapy, photodynamic therapy; general characteristics of methods of vibrotherapy, ultrasound therapy, barotherapy, aeroionotherapy, aerosol therapy, halotherapy. 7) general characteristics of methods of hydrotherapy, heat therapy, paraffin therapy, ozokerite therapy, cryotherapy. 8) principles of organization of work of physiotherapeutic department (office) and safety precautions during physiotherapeutic procedures.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 17. Ability to keep medical records.

### **-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according

to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)

**SUMMARY OF THE ELECTIVE COURSE**  
**GASTROENTEROLOGY AND FUNDAMENTALS**  
**OF HEALTHY NUTRITION WITH DIETOLOGY**

\_training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 63 «Gastroenterology and fundamentals of healthy nutrition with dietology»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** raising the educational level of students on the diagnosis and treatment of gastrointestinal diseases, the main provisions of treatment and prevention nutrition in accordance with modern international standards. Developing the ability to apply the acquired knowledge, skills, abilities and understanding in the process of further training to solve typical tasks of a doctor in the field of health care.

**Main tasks:** formation of the ability to apply the acquired knowledge, skills, abilities and understanding to solve typical tasks of the doctor in the field of health care, the scope of which is provided by certain lists of syndromes and symptoms of gastrointestinal diseases that require special tactics of patients; laboratory and instrumental research, medical manipulations; formation of the ability to apply knowledge of pathology of the gastrointestinal tract and knowledge of the basic provisions of therapeutic and preventive nutrition in the process of further training and professional activities in accordance with the principles of evidence-based medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 6,7,8,9,10,12,15,16,17,19, 28,30,31,32,37,46,52).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2,6,9,15,19, 20,22,25,34,37,40,42,46,56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101). Assign laboratory and / or instrumental examination of the patient (according to list 4: 6,7,8,9,10,12, 15,16,17,19, 28,30,31,32,37,46,52) by making an

informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 21. Perform medical manipulations (according to list 5: 12, 17) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of internal and family medicine (prof. Paliy I.G., associate prof. Chernova I.V. )



**SUMMARY OF THE ELECTIVE COURSE**  
**INSTRUMENTAL DIAGNOSIS OF ACUTE SURGICAL PATHOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 64 «Instrumental diagnosis of acute surgical pathology» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The discipline create the foundations of specialized knowledge on the basic instrumental research of urgent surgical pathology, determination of indications for the use of instrumental research, determines the main research methods and informativeness of their application, the influence of ultrasound and endovideo research on the choice of treatment tactics in patients with urgent surgical pathology. The discipline is a link between diagnostic and clinical disciplines that contribute to the formation of the profile of the master of medicine.

**Main tasks:** After an elective cycle, students learn what are the specified diagnostic techniques, their types, capabilities in the diagnosis of urgent surgical pathology, the probable complications, feasibility and effectiveness of each of these methods depending on the pathology.

In addition, special emphasis will be placed on the types of modern equipment, its capabilities, principles of preparation and preparation for each procedure.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC7. Ability to diagnose emergencies.

PC11. Skills of medical manipulations.

-**program learning outcomes**

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 2, 6-8, 10, 12 – 19, 21, 28, 30-32, 46).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 2, 6, 8-9, 14-15, 19-22, 25, 29, 37, 46, 55-56 ) by making an informed decision. Establish the most probable or syndromic

diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4: 2, 6-8, 10, 12 – 19, 21, 28, 30-32, 46) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 77-78, 83-85, 87-102) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 77-78, 83-85, 87-102 ) by making an informed decision and logical analysis.

PLO17. Establish a diagnosis of an emergency (according to list 3: 16-17, 22, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO21. Perform medical manipulations (according to list 5: 5, 6, 7, 8, 17, 21) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:** Department surgery №2 with course «Basic stomatology» (Prof. Pokydko M.I.)

**SUMMARY OF THE ELECTIVE COURSE**  
**PERIOPERATIVE MANAGEMENT OF A PATIENT WITH ACUTE ABDOMINAL**  
**PATHOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 65 «Perioperative management of a patient with acute abdominal pathology»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The purpose of teaching the discipline is to master the basic theoretical principles of perioperative support, mastering the practical skills necessary for successful and effective treatment of a surgical patient, determination of pathophysiological mechanism changes in the body that occur in patients with acute abdominal pathology, the principles of correct interpretation of clinical information obtained during the examination of the patient, and the basic principles of treatment and rehabilitation of patients.

**Main tasks:** After an elective cycle, student must learn consideration and mastering of theoretical bases of emergency preoperative preparation, features of urgent operative technique, correction of metabolic changes in an organism against acute abdominal pathology, principles and methods of early rehabilitation of the patient, practical skills creation in applicants of higher medical education to apply them in medical practice.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC11. Skills of medical manipulations.

-**program learning outcomes**

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 2, 6-8, 10, 12 – 19, 21, 28, 30-32, 46 ).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 2, 6, 8-9, 14-15, 19-22, 25, 29, 37, 46, 56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 77-78, 83-85, 87-102). Assign laboratory and / or instrumental examination of the patient (according to list 4: 2, 6-8, 10, 12 – 19, 21, 28, 30-32, 46) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 77-78, 83-85, 87-102) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 77-78, 83-85, 87-102) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 77-78, 83-85, 87-102 ) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 77-78, 83-85, 87-102) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 77-78, 83-85, 87-102) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO17. Establish a diagnosis of an emergency (according to list 3: 16-17, 22, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 16-17, 22, 35) in a limited time with the help of standard schemes.

PLO19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 16-17, 22, 35) in a limited time with the help of standard schemes.

PLO21. Perform medical manipulations (according to list 5: 5, 6, 7, 8, 17, 21) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:** Department surgery №2 with course «Basic stomatology» (Prof. Pokydko M.I.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 66 «Fundamentals of sexology and sexopathology»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Sexology is an interdisciplinary field of knowledge that studies the causes, conditions of development and clinical manifestations of sexual disorders in order to diagnose, to correct, to prevent and treat them. Sexology covers a range of issues related to the normal manifestations of human sexuality, as well as general and specific issues of sexopathology.

**Main tasks:** formation of a system of knowledge in higher education students to understand the concept of "sexual norm" and "sexual health", as well as the level of sexual adaptation due to all levels of interaction of partners: anatomical-physiological, social, socio-psychological.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment.

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

-**program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be

responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies.

PLO13. Identify the leading clinical symptom or syndrome by making an informed decision. Establish the most probable or syndromic diagnosis of the disease. Assign laboratory and / or instrumental examination of the patient by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

**Elaborator:** Department of obstetrics and gynecology №1, assistant Kucherenko Oksana

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 67 «Urogynecology»** belongs to subjects of professional training  
in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Urogynecology is a science that causes the causal links between urological and gynecological diseases. This is a surgical discipline. There are a number of diseases that can be attributed to the fields of urology and gynecology. This is an interdisciplinary field of clinical medicine that studies the etiology, pathogenesis of development and clinical manifestations of urinary tract disorders in women to diagnose diseases of the urinary system, adrenal glands and other pathological processes in the retroperitoneal space, rational treatment, psychological correction and effective prevention and obstetric and gynecological complications. Geriatric urogynecology specializes in the diagnosis of aging signs in women and the treatment of urogenital problems in elderly patients of the postmenopausal period, who may suffer from urinary incontinence, pelvic prolapse, background and precancerous conditions.

**Main tasks:** to form in students of higher education a system of knowledge on understanding and awareness of the concept of complexity and integrity of anatomical and physiological features of the pelvic organs of women, the concept of physiological and pathological changes at different ages. Learn to assess the impact of pathological conditions on the quality of life of women, socio-psychological aspects of women's lives. To form the ability to interpret various functional and organic disorders, their diagnosis, adequate management and prevention of age-related degenerative changes in the urogynecological tract of women.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment.

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

- PC6. Ability to determine the principles and type of treatment of diseases.
- PC7. Ability to diagnose emergencies.
- PC8. Ability to determine the tactics of emergency medical care.
- PC9. Skills in providing emergency medical care.
- PC11. Skills of medical manipulations.
- PC13. Ability to carry out sanitary and hygienic and preventive measures.
- PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.
- PC16. Ability to conduct a medical examination.
- PC17. Ability to keep medical records.
- PC18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.
- PC19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to



the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies.

PLO13. Identify the leading clinical symptom or syndrome by making an informed decision. Establish the most probable or syndromic diagnosis of the disease. Assign laboratory and / or instrumental examination of the patient by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**Elaborator:** Department of obstetrics and gynecology №1, assistant, PhD Kostjuk Irina

**SUMMARY OF THE ELECTIVE COURSE**  
**ENDOSCOPIC METHODS IN GYNECOLOGY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 68 «Endoscopic methods in gynecology» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** To acquaint students with the types of modern minimally invasive techniques in operative gynecology.

**Main tasks:**

- Consider the features of technical performance of robotic, laparoscopic and hysteroscopic operations.
- To acquaint with the advantages of minimally invasive techniques in gynecology and indications and contraindications to their implementation.
- Analyze videos of basic minimally invasive operations in gynecology.
- To acquaint with possible complications at performance of minimally invasive operations and ways of their correction.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 7. Ability to diagnose emergencies.

PC 11. Skills of medical manipulations.

PC 12. Ability to determine the management tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning and contraceptive counseling skills.

PC 17. Ability to keep medical records.

**Program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to

effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4, 5, 11, 17, 31, 32, 54).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 1, 6, 33) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 204-235). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4, 5, 11, 17, 31, 32, 54) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 204-235) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 204-235) by making an informed decision and logical analysis.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 30) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 21. Perform medical manipulations (according to list 5: 12, 16, 19, 21, 22, 23, 25, 26, 27) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 22. Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning counseling; to select a modern method of contraception for different categories of the population.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

Elaborator: Department of obstetrics and gynecology № 2 (professor Grygorenko A.M.)

**SUMMARY OF THE ELECTIVE COURSE**  
**SELECTED PROBLEMS OF PEDIATRICS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 69 «Selected problems of pediatrics»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to deepen and improve students' knowledge on particular illnesses of children of different ages, methods of their diagnostics, treatment and prophylaxis.

**Main tasks:**

- to encourage the method of prophylaxis of Ukraine health care, which is one of the essential principles in the organization of pediatric help for children;
- to emphasize the importance and necessity of studying medical ethics and medical deontology for the formation of doctors' identity;
- to cover the issues of professional orientation;
- to develop clinical thinking;
- to acquire and strengthen practical skills.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

PC8. Ability to determine the tactics of emergency medical care.

PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC17. Ability to keep medical records.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4, 6-8, 10, 12-19, 25, 26, 29-32, 40, 42, 46, 47, 48, 49, 52).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 6, 9, 14, 19, 21, 23, 25, 28, 42, 52) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 35, 62, 67, 95, 98, 113). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4, 6-8, 10, 12-19, 25, 26, 29-32, 40, 42, 46, 47, 48, 49, 52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 35, 62, 67, 95, 98, 113) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 35, 62, 67, 95, 98, 113) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 35, 62, 67, 95, 98, 113) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 35, 62, 67, 95, 98, 113) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 35, 62, 67, 95, 98, 113) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO17. Establish a diagnosis of an emergency (according to list 3: 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 3) in a limited time with the help of standard schemes.

PLO25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of Pediatrics №1 (prof. Yablon O.S.)

**SUMMARY OF THE ELECTIVE COURSE**  
**DISEASES OF EARLY AGE CHILDREN**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 70 «Diseases early age children»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to enhance and improve students' knowledge on the pathology of children of early age, methods of their diagnostics, treatment and prophylaxis.

**Main tasks:**

- to implement the principles of prophylaxis of Ukraine health care, which is one of the essential principles in the organization of pediatric help for children.
- To emphasize the importance and necessity of studying medical ethics and medical deontology for the formation of doctors' identity.
- To cover the issues of professional orientation
- To develop clinical thinking
- To acquire and strengthen practical skills

**Competences, which are formed by the discipline:**

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general:*

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- *professional:*

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

PC8. Ability to determine the tactics of emergency medical care.

PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.



PC17. Ability to keep medical records.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4, 6-8, 10, 12-19, 25, 26, 29-32, 40, 42, 46, 47, 48, 49, 52).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 9, 10, 14, 23, 25, 28, 43, 45-48, 50, 52) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 59, 63, 74, 80, 95, 98). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4, 6-8, 10, 12-19, 25, 26, 29-32, 40, 42, 46, 47, 48, 49, 52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 59, 63, 74, 80, 95, 98) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 59, 63, 74, 80, 95, 98) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 59, 63, 74, 80, 95, 98) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 59, 63, 74, 80, 95, 98) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 59, 63, 74, 80, 95, 98) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO17. Establish a diagnosis of an emergency (according to list 3: 3, 27,35 ) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 3, 27,35) in a limited time with the help of standard schemes.

PLO25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of Pediatrics №1 (prof. Yablon O.S.)

## **SUMMARY OF THE ELECTIVE COURSE** **SELECTED ISSUES OF AESTHETIC SURGERY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
specialty 222 «Medicine»

**Summary of the course:** EC 71 «Selected issues of aesthetic surgery» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final control - credit.**

**Objectives:** ensuring the acquisition by students of theoretical knowledge and practical skills on such topics as: "Pathological scars", "Vascular pathology of the skin", "Pathology of the breast" and other topics necessary for the training of specialists in the correction of pathology of appearance and in general for highly educated and an erudite doctor.

**Main tasks:** ensuring the appropriate level of basic training of a doctor who has the necessary practical skills and knowledge of the features of surgical pathology of appearance.

**Competences, which are formed by discipline:**

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC11. Skills of medical manipulations.

**Program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively

form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of

medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:** department of Surgery of Medical Faculty N2 (MD, prof. Ranikovsky O.E.)

## SUMMARY OF THE ELECTIVE COURSE

### EXANTHEMAS IN CHILDREN

Training Professionals of Second (Master's Degree) Level of Higher Education

Educational Qualification «Master of Medicine»

Branch of Knowledge 22 «Health Care»

Specialty 222 «Medicine»

**Summary of the Course:** EC 72 «Exanthemas in Children» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Theoretical knowledge deepening, improvement and mastering of practical skills at differential diagnosis of the diseases which are followed by exanthemas for getting professional level obtaining in children infectology field.

**Main tasks** for general practitioners in their practice:

- Conduct an objective examination of a patient with exanthema of both infectious and non-infectious origin, interpret the results, taking into account the anatomical and physiological characteristics and age norms.
- Identify different clinical variants of the disease accompanied by exanthemas.
- Identify the complications of the most common infectious diseases with childhood exanthemas, as well as diagnose conditions that threaten the life of the child.
- Make a plan of treatment and prevention and make a prognosis for the most common infectious diseases of childhood.
- Address the need for patient hospitalization, provide emergency care in major emergencies. Be able to organize an infectious hospital at home.
- Conduct dispensary supervision of children - convalescents of infectious diseases with exanthema syndrome.
- Make a plan for anti-epidemic measures in the centers of infections.

**Competences**, which are formed by the discipline:

– **Integral:**

Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

– **General:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. Ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

– **Professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

PC8. Ability to determine the tactics of emergency medical care.

PC9. Skills in providing emergency medical care.

PC11. Skills of medical manipulations.

PC13. Ability to carry out sanitary and hygienic and preventive measures.

PC14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

PC15. Ability to determine the tactics management of persons' subject to dispensary supervision.

PC17. Ability to keep medical records.

PC21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

#### – **Program Learning Outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Be responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. Be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. Be able to apply means of self-regulation, be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. Be responsible for fluency in the state language, for the development of professional knowledge.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, be responsible for the quality fulfilment of the tasks set.

PLO9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4-21, 25, 26, 29-40, 42, 44, 46-49, 52).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 3, 4, 6, 7, 9, 10, 11, 14-17, 19-28, 30-37, 39-43, 45-50, 52, 55-57) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4-21, 25, 26, 29-40, 42, 44, 46-49, 52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198) by making an informed decision and logical analysis.

PLO14. Determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. Determine the necessary medical nutrition in the treatment of the disease (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. Determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 1, 2, 3- 5, 7, 9, 18, 20, 32, 34, 36, 40, 43, 46, 47, 51-53, 57-59, 62, 63, 64, 71, 73, 74, 78, 80, 81, 82, 85, 87, 91, 94, 98, 100, 101, 106-108, 110, 115, 116, 117, 118, 120, 129, 136, 146, 147, 149-157, 158, 161-165, 169-176, 178-181, 183, 186, 188-189, 195, 198) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.



PLO17. Establish a diagnosis of an emergency (according to list 3: 1-5, 7, 8, 16, 18-20, 22, 23, 24, 27, 31, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. Determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 1-5, 7, 8, 16, 18-20, 22, 23, 24, 27, 31, 35) in a limited time with the help of standard schemes.

PLO19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1-5, 7, 8, 16, 18-20, 22, 23, 24, 27, 31, 35) in a limited time with the help of standard schemes.

PLO21. Perform medical manipulations (according to list 5: 1-5, 8, 10-17, 21) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO23. Form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2: 169-176, 178-181, 183, 186, 188-189, 195, 198) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (according to list 2: 169-176, 178-181, 183, 186, 188-189, 195, 198), primary anti-epidemic measures in the centre of infectious disease.

PLO25. Determine the tactics of examination and secondary prevention of patients' subject to dispensary supervision; tactics of examination and primary prevention of healthy persons' subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO30. Form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Pediatric Infectious Diseases (ph.D., Assoc. Prof. Onofriichuk O.S.)

**SUMMARY OF THE ELECTIVE COURSE**  
**CURRENT ISSUES OF RHEUMATOLOGY (SYSTEMIC VASCULITES)**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 73 “Topical issues of rheumatology (systemic vasculites)” belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 “Medicine”.

**Final Control** – credit.

**Objectives:** the discipline lays the foundations of specialized knowledge in the field of rheumatology, namely, the acquisition and deepening of skills, abilities and ability to diagnose, differentiate and treat major diseases of the systemic vasculitis, which are necessary in the professional activity of physicians. Professional program specialist.

**Main tasks:** formation of higher education systems of knowledge and skills to determine the etiological and pathogenic factors of systemic vasculitis, the ability to classify and analyze the clinical picture of systemic vasculitis, the ability to identify different clinical variants and complications of systemic vasculitis, substantiate and formulate a preliminary diagnosis and plan of examination of the patient, interpret the results of laboratory and instrumental studies, conduct differential diagnosis, substantiate and determine the tactics of the patient, prescribe non-drug and modern drug treatment for systemic vasculitis, determine the prognosis and efficiency of patients.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

PC8. Ability to determine the tactics of emergency medical care.

- PC9. Skills in providing emergency medical care.
- PC11. Skills of medical manipulations
- PC13. Ability to carry out sanitary and hygienic and preventive measures.
- PC15. Ability to determine the tactics of management of persons subject to dispensary supervision.
- PC16. Ability to conduct a medical examination.
- PC17. Ability to keep medical records.
- PC18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

***Program learning outcomes:***

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard

technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

**Elaborator:** Department of Internal Medicine #1 (Prof. Mykola Stanislavchuk)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 74 «Clinical vertebrology» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The purpose of mastering the discipline is to formation students ideas about the main types of massage, mechanisms his effects on the human organism, types of manual therapy and their use in different musculoskeletal pathology, comorbid conditions, functional disorders, which arose as a result of diseases of the musculoskeletal system.

**Main tasks:** 1. To study the basics of the clinical anatomy of the musculoskeletal system; 2. To determine the ethiological and pathogenetic factors of the most common diseases of the musculoskeletal system. 3. Analyzed the typical clinical picture of the most common diseases of the musculoskeletal system. 4. Identify different clinical variants and complications of the most common diseases of the musculoskeletal system. 5. Carry out manual diagnosis of the most common diseases of the musculoskeletal system. 6. Carry out massage and manual therapy. 7. Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in medicine.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 17. Ability to keep medical records.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)



## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 75 «Sanatorium and resort agents in medical rehabilitation»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** Formation of students' system of theoretical knowledge, practical skills and abilities to use environmental means to prevent human health disorders, improve the functional state of the body, general and special performance, especially the use of natural factors in medical rehabilitation to maintain and recovery health, disruption of vital functions and functioning.

**Main tasks:** 1. have the concept of climatotherapy as an independent discipline; history of climatotherapy development; climatotherapy methods; place of climatotherapy in medical rehabilitation; 2) the concept of specific and nonspecific reactions of the organism to the climatic factor under certain conditions of the organism; 3) clinical and physiological effects of climatic factors on the human body; 4) about new and traditional methods of climatotherapy; 5) general characteristics of climatotherapy methods.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

- PC 7. Ability to diagnose emergencies.
- PC 8. Ability to determine the tactics of emergency medical care.
- PC 9. Skills in providing emergency medical care.
- PC 11. Skills of medical manipulations.
- PC 17. Ability to keep medical records.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department Physical and Rehabilitation medicine (Associate professor Kravets R. A.)

**SUMMARY OF THE ELECTIVE COURSE  
FUNDAMENTALS OF NEONATAL SURGERY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 76 "Fundamentals of Neonatal Surgery"** belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 "Medicine".

**Final control** - credit.

**Objectives:** the discipline lays the foundations of specialized knowledge on the etiology, pathogenesis, clinical symptoms, diagnostic and treatment algorithm of surgical congenital malformations, surgical urgent conditions in newborns, modern principles of determining the patient's route, the necessary volume of surgical treatment, diagnostic measures, rehabilitation measures, duration and set of rehabilitation measures.

**Main tasks:** formation of clinical thinking in higher education students, knowledge system on diagnostics, conservative and surgical treatment, rehabilitation and dispensary supervision of newborns with surgical congenital malformations, surgical urgent conditions, system of assessment and selection of optimal and informative general clinical biochemical, bacteriological, cytological, histological, endoscopic, radiological, minimally invasive methods of examination, assessment of targeted priority of minimally invasive or open methods of surgical treatment, system of knowledge on infusion, antibacterial, antifungal, syndrome therapy, nutritional and infusional nutrition.

**Competences**, the formation of which is facilitated by the discipline:

- **integral:** specialized conceptual knowledge, which includes modern scientific achievements in the field of professional medical activities and knowledge "Pediatric Surgery" and is the basis for original thinking and research, critical understanding of problems in the field and at the boundaries of knowledge.

- **general:**

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**Program learning outcomes:**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy

persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Pediatric Surgery (PhD, teacher Soleiko D.S.).

**SUMMARY OF THE ELECTIVE COURSE**  
**FUNDAMENTALS OF ACTUAL ISSUES OF PEDIATRIC GYNECOLOGY**

training professionals of second (Master's degree) level of higher education

educational qualification «Master of Medicine»

branch of knowledge 22 «Health Care»

Specialty 222 «Medicine»

**Summary of the course:** EC 77 "Actual issues of pediatric gynecology" belongs to the cycle of disciplines of professionally-oriented training of specialists in the specialty 222 "Medicine".

**Final control** - credit.

**Objectives:** the discipline lays the foundations of specialized knowledge on the etiology, pathogenesis, clinical symptoms, diagnostic and treatment algorithms of pediatric gynecological malformations, urgent conditions, modern principles of determining the patient's route, the required amount of diagnostic measures, post-syndrome conservative treatment, surgical treatment .

**Main tasks:** formation of clinical thinking in higher education students, knowledge system on diagnostics, conservative and surgical treatment, rehabilitation and dispensary supervision of pediatric gynecological malformations, urgent conditions, system of assessment and selection of optimal and informative general clinical, biochemical, bacteriological , cytological, histological, endoscopic, radiological, minimally invasive methods of examination, assessment of address priority of minimally invasive or open methods of surgical treatment, system of knowledge on infusion, antibacterial, antifungal, post-syndrome therapy.

**Competences**, the formation of which is facilitated by the discipline:

- **integral:** specialized conceptual knowledge, which includes modern scientific achievements in the field of professional medical activities and knowledge "Pediatric Surgery" and is the basis for original thinking and research, critical understanding of problems in the field and at the boundaries of knowledge.

- **general:**

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**Program learning outcomes:**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of Pediatric Surgery (PhD, teacher Soleiko D.S.).



**SUMMARY OF THE ELECTIVE COURSE**  
**INTERPRETATION OF MODERN LABORATORY-INSTRUMENTAL**  
**METHODS OF DIAGNOSTICS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 78 «Interpretation of modern laboratory-instrumental methods of diagnostics»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to form skills and abilities that will help to interpret the results of physical, instrumental and laboratory research methods in the most common pathology of internal organs and systems.

**Main tasks:** acquaintance with modern instrumental and laboratory research methods in the diagnosis of diseases of internal organs; formation of the ability to apply the acquired knowledge, skills, abilities and understanding to solve typical problems of the doctor in the field of health care, the scope of which is provided by certain lists of syndromes and symptoms, laboratory and instrumental research, further education and professional activities in accordance with the principles of evidence medicine.

**Competences**, which are formed by the discipline:

- *integral*: Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general*:

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- *professional*:

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 11. Skills of medical manipulations.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be

responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 6,7,8,9,10,12,15,16,17,19, 28,30,31,32,37,46,52).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2,6,9,15,19, 20,22,25,34,37,40,42,46,56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101). Assign laboratory and / or instrumental examination of the patient (according to list 4: 6,7,8,9,10,12, 15,16,17,19, 28,30,31,32,37,46,52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 21,78,80, 81,82,85,86,91,92,94,95,98,100,101) by making an informed decision and logical analysis.

PLO 21. Perform medical manipulations (according to list 5: 12, 17) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:** Department of internal and family medicine (prof. Paliy I.G., associate prof. Chernova I.V. )

## SUMMARY OF THE ELECTIVE COURSE

### «BASES OF ECG»

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 79 «BASES OF ECG» belongs to subjects of professional training in Specialty 222 «Medicine».

#### **Final Control – credit.**

**Objectives:** The discipline lays the foundations of specialized knowledge of: - the main electrophysiological mechanisms of bioelectric activity of the heart due to violations of the function of automatism, excitability and conductivity, which are leading in diagnosis of arrhythmia disorders, hypertrophy, ECG changes in different clinical forms of coronary heart disease, in electrolyte, metabolic changes and other diseases of the cardiovascular system; skills and abilities of estimation normal ECG, ECG registration in generally accepted 12 leads, its analysis, writing an ECG report and clinical interpretation of the data obtained, which is quite important not only for diagnosis of the disease, but also for observing its course, control of the effectiveness of treatment.

The discipline is a connecting link between clinical disciplines that form a master's profile of medicine.

**Main tasks:** Formation of high education of knowledge about the mechanisms of electric phenomena that arise in the cardiac muscle during its activities in a norm and in pathology. Understanding the basics of ECG analysis, which gives an opportunity with great accuracy to talk about the localization of focal changes of myocardium, their propagation, depth and time of appearance. Familiarity with the traditional and latest methods of electrocardiographic research, forms the ability to interpret an ECG research, which helps to identify hidden coronary insufficiency, transient rhythm disorders, to conduct a differential diagnosis between functional and organic heart disorders.

#### **Competences, which are formed by the discipline:**

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

#### **- general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

#### **- professional:**

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

#### **-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

**Elaborator:** Department of Internal Medicine № 2 (professor, phd Masik N. P., research assistant, phd Osypenko I.P.).

## SUMMARY OF THE ELECTIVE COURSE

### Current issues of practical hematology

training professionals of second (Master's degree) level of higher education

educational qualification «Master of Medicine»

branch of knowledge 22 «Health Care»

Specialty 222 «Medicine»

**Summary of the course: EC 80 «Current issues of practical hematology.»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** To form students' skills and abilities to apply modern hematological methods of diagnosis and treatment in practical medicine. The discipline is an important part of the clinical disciplines that form the profile of the master of medicine.

**Main tasks:** formation of higher education system of knowledge about modern diagnostic methods in hematology: their use in general practice, diagnostic and treatment tactics of a patient with anemia, diagnostic and treatment tactics of a patient with lymphadenopathy, diagnostic and treatment tactics of a patient with splenomegaly tactics of patient management with hemostasis pathology, modern methods of treatment of hematological patients and their side effects and correction

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 16. Ability to conduct a medical examination.

PC 17. Ability to keep medical records.

PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

PC 20. Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

#### **program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:**

Department of Internal Medicine №2 Associate Professor Lysenko DA

## SUMMARY OF THE ELECTIVE COURSE

### Practical aspects of modern allergology

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 81** “Practical aspects of modern allergology” belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** obtaining knowledge of the fundamental discipline "Allergology", the study of which is necessary for the successful mastering of general medical training. The subject area of the program is to obtain knowledge on the subject of "allergology", practical skills and abilities.

**Main tasks:** - Promoting the method of preventive health care in Ukraine, which is one of the important principles in the organization of medical care;  
- Emphasizing the importance and necessity of studying issues of medical ethics and medical deontology for the formation of the doctor's personality;  
- Consideration of issues of professional orientation in the field of clinical immunology and allergology;  
- Development of clinical thinking;  
- Active acquisition and consolidation of practical skills.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

- **professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.



PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

#### **-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an

informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**Elaborator:** Department of Phthisiology, Clinical immunology and Allergology (Associate Professor, PhD Bogomolov Artemii Ye.)

**SUMMARY OF THE ELECTIVE COURSE  
ACTUAL PROBLEMS OF CLINICAL PATHOMORPHOLOGY  
(AGE AND GENDER ASPECTS)**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Speciality 222 «Medicine»

**Summary of the course: EC 82 «Actual problems of clinical pathomorphology (age and gender aspects)»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** the discipline extends and systematizes knowledge about modern methods of morphological tests, aetiology, pathogenesis and clinical manifestations of diseases, structural bases of complications and consequences of diseases, tumours and precancerous conditions, normative medical documentation. The discipline is necessary for the successful mastering of many clinical disciplines and the formation of clinical thinking, which forms the profile of the master of medicine.

**Main tasks:** mastering the basics of modern morphological test methods, interpretation of aetiology, pathogenesis and clinical manifestations of diseases in combination with morphological changes at different stages of the disease, structural bases of complications and consequences of diseases studied during the course, in-depth study of modern methods of diagnosing tumours and precancerous conditions formulation of clinical and pathological diagnoses according to modern Health Care regulations and acts. Forming the ability to interpret traditional and modern molecular-genetic and pathomorphological tests.

**Competences**, which are formed by the discipline:

**- integral:**

Ability to solve complex problems of the health care system by the speciality "Medicine" in professional activity or in the learning process, which involves realization researches and/or implementation innovations and it is characterized by the uncertainty of conditions and requirements.

**- general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date training.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of the professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

**- professional:**

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**Program learning outcomes**, which are formed by the discipline:

PLO 1. Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4:20-23, 54).

**Elaborator:** department pathological anatomy, forensic medicine and law (ass Bevz V.O.)

## SUMMARY OF THE ELECTIVE COURSE BIOPSY-SECTIONAL COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC83** «Biopsy-sectional course» belongs to subjects of  
professional training in Specialty 222 «Medicine».

**Final Control** – test credit.

### **Objectives:**

- to be able to analyze and clinically comprehend the results of pathological examination of the corpse and examination of biopsy material;
- to interpret, evaluate and formulate clinical and pathological diagnosis, to be able to compare them;
- master the principles of organizing and conducting clinical and anatomical conferences and medical control commissions;
- to learn appropriately to draw up a medical certificate of death;
- to be able to reflect the nosological forms of the disease with the definition of their cause and mechanism of development, using the International Classification of Diseases 10 revision (ICD-10).

**Main tasks:** Biopsy-sectional course is designed for clinical understanding of the results of the study of biopsy material, the doctrine of diagnosis, demonstration of the activities of a pathologist in treatment and prevention facilities. The Biopsy-sectional course completes the clinical and anatomical training of future doctors. The materials of this course are necessary for the practical activities of doctors of all specialties. The knowledge acquired during this course summarizes the skills and abilities that a clinical morphologist should possess, as well as provide an opportunity to establish the clinical symptoms and morphological substrate of the disease. At the present level, the problems of diagnosis, structure and principles of its construction are covered. Data on pathology, and also on conformity of formulation of the diagnosis to the International classification of diseases of 10 revisions (ICD-10) are resulted. Data on the organization and holding of clinical and anatomical conferences and medical control commissions are given. By solving situational problems on the principles of construction of clinical and pathological diagnoses, students learn to properly draw up a medical certificate of death.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.

GC2. Ability to apply knowledge in practical situations.

GC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC8. Definiteness and perseverance in terms of tasks and responsibilities.

**- professional:**

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**-program learning outcomes**

PLO1. To be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. To have specialized conceptual knowledge acquired in the learning process. Be able to solve complex problems and problems that arise in professional activities. Ability to form effectively a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Be responsible for making decisions in difficult conditions.

PLO3. Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO4. To know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the official language, for the development of professional knowledge.

PLO7. To know the basics of information and communication technologies and be able to apply them in professional activities.

PLO8. To know their professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality of the tasks.

PLO9. To know your social and community rights and responsibilities. To develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects

of medical relations and respect for human rights in the field of health care. Be responsible for your civic position and activities.

PLO10. To know the problems of environmental protection and ways to defend them. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO12. To evaluate diagnosis information using a standard procedure based on the results of laboratory and instrumental studies.

**Elaborator:** Department of Pathological anatomy (prof. Vernygorodskyi S.V., assoc.prof. Sorokoumov V.P.)

## **SUMMARY OF THE ELECTIVE COURSE FUNDAMENTALS OF PSYCHOANALYSIS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 84 «Fundamentals of psychoanalysis»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** discipline lays the foundations of knowledge about the specifics of psychoanalysis as a science, its essence, differences from other psychiatric, psychological and psychotherapeutic sciences, the origin and evolution of psychoanalytic knowledge, features of its development, basic theories and branches. The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** formation of applicants for higher education basic knowledge about the specifics of psychoanalysis, in particular its applied aspects, formation of understanding of the unconscious essence of man, combination of intellectual and irrational, mind and emotions, holistic image of his social and inner life; development of the ability to scientifically comprehend the complexity and inseparability of unconscious processes in the structure of individual life in society. Forms the ability to interpret traditional and new approaches in psychotherapy, including analytical areas used to diagnose mental and behavioral disorders, monitor their spread and mental health opportunities.

**Competences**, which are formed by the discipline:

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general:*

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

- *professional:*

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.



PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

PC 17. Ability to keep medical records.

PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

**-program learning outcomes**

PLO 1. Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behaviour. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 7, 8, 13, 14, 16, 17, 30-33, 36, 38, 49).

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned

contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2: 169, 170, 173-176, 178-181, 183, 186, 187-189, 195, 196, 198, 200-201) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (according to list 2: 169, 170, 173-176, 178-181, 183, 186, 187-189, 195, 196, 198, 200-201), primary anti-epidemic measures in the center of infectious disease.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease (according to list 2: 11-16) and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 30. To form rational medical routes of patients with mental and behaviour disorders (according to list 2: 11-16); organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Psychiatry, Narcology and Psychotherapy with PGC (Prof. Rymsha S.V., Ass-prof. Ratsyborynska-Polyakova N.V. )

## **SUMMARY OF THE ELECTIVE COURSE PEDIATRIC RARE DISEASES**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 85 «Pediatric Rare Diseases» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** to improve theoretical knowledge and practical skills for 5th year students in questions of early diagnosis, principles of treatment of rare diseases.

### **Main tasks:**

- To establish a probable preliminary clinical diagnosis of rare disease according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems.
- Collect information about the general condition of the patient.
- Ability to describe the phenotype, assess the psychomotor and physical development of the patient, collect information about hereditary history, condition of organs and systems.
- Ability to make a pedigree of the patient.
- Evaluate the data of cyto-genetic examination.
- Evaluate data from biochemical tests.
- Evaluate the data of molecular genetic tests.

### **Competences, which are formed by the discipline:**

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

#### **- general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

#### **- professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 10. Ability to carry out medical and evacuation measures.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4):4,6-19,23,25-32,35,36,42,46-49.

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1):3,5,7,10-12,15-17,19,20,22-31,36-40,45-47,49-56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3):4,6,8,9,21,24,28) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3):4,6,8,9,21,24,28) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3):4,6,8,9,21,24,28) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5): 1-5,8,12,27) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Department of Pediatrics№2 (Head of the Department, Prof. Dudnyk V., Ass-prof. Shalamai M.)

## **SUMMARY OF THE ELECTIVE COURSE** **DIFFICULT GENETIC CASES IN PEDIATRICS**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 86 «Difficult genetic cases in pediatrics »** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** is to learn clinical cases, which will help in the diagnosis of chromosomal, monogenic, multifactorial, mitochondrial diseases and congenital malformations, teach to use different diagnostic methods and prescribe treatment.

### **Main tasks:**

- To get propaedeutic skills for collecting anamnesis and examination of a patient with hereditary and congenital pathology in order to describe the phenotype (according to clinical cases with photo) by students ;
- To understand the purpose and possibilities of modern methods of cytogenetic, biochemical and molecular genetic diagnostics;
  - To study the clinical and genealogical method (pedigree), and its analysis, identification of the probable type of inheritance;
  - To study the causes of clinical polymorphism of hereditary pathology;
  - To get the knowledge and development skills for the diagnosis of the most common forms of hereditary pathology and congenital malformations;
  - To study treatment methods;
  - To understand the purpose, knowledge of methods and possibilities of medical and genetic counseling, prenatal diagnostics and screening programs;

### **Competences, which are formed by the discipline:**

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

#### **- general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment

**- professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

PC 8. Ability to determine the tactics of emergency medical care.

PC 9. Skills in providing emergency medical care.

PC 10. Ability to carry out medical and evacuation measures.

PC 11. Skills of medical manipulations.

PC 13. Ability to carry out sanitary and hygienic and preventive measures.

PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.

PC 17. Ability to keep medical records.

**-program learning outcomes**

PLO1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical



relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4):4,6-19,23,25-32,35,36,42,46-49.

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1):3,5,7,10-12,15-17,19,20,22-31,36-40,45-47,49-56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2): 1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2):1, 3, 6, 13, 14, 19-23, 37, 39, 40, 47, 48,52,53,57-63, 65, 67, 71, 77, 79, 82, 83, 94-96, 105, 107, 108, 125, 128, 132, 147-151, 154, 156, 157, 159, 160, 171) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3):4,6,8,9,21,24,28) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3):4,6,8,9,21,24,28) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3):4,6,8,9,21,24,28) in a limited time with the help of standard schemes.

PLO 21. Perform medical manipulations (according to list 5): 1-5,8,12,27) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Department of Pediatrics№2 (Head of the Department, Prof. Dudnyk V., Ass-prof. Sinchuk N.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 87 «Ultrasound in Obstetrics and Gynecology»** belongs to  
subjects of professional training in Specialty 222 «Medicine».

### **Final control - credit.**

**Objectives:** the discipline lays the foundations of specialized knowledge on the basics of ultrasound scanning and ultrasound techniques in obstetrics and gynecology, skills and abilities to assess the condition of the pelvic organs in non-pregnant patients and the condition of the fetus at different stages of gestational development. The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** formation of higher education in the system of knowledge to identify and correctly scan patients in different phases of the menstrual cycle, assessment of pelvic organs in the presence and absence of pathology, application of algorithms for assessing the functional state of the pelvic organs and conclusions of the ultrasound; assessment of the condition of the fetus at different stages of gestational development, setting the sensor to assess Doppler indicators that reflect the condition of the fetus in different trimesters of pregnancy; acquaintance with traditional and newest methods of diagnostics of disturbances of structure and development of pelvic organs. Forms the ability to interpret traditional and modern studies that are used to diagnose disorders of the pelvic organs and fetal development at different stages of gestational development.

**Competences,** which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- **general:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

-**program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

**Elaborator:** Department of Obstetrics and Gynecology №1 (O.B.Malinina)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 88 «Contraception» belongs to subjects of professional training in Specialty 222 «Medicine».

### **Final control - credit.**

**Objectives:** The discipline lays the foundations of specialized knowledge on the basics of contraception, assessment of the general condition of patients on the appointment of different types of contraceptives, assessment of female sex hormones for the correct appointment of contraceptives, the purpose and necessity of contraceptives. The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** formation of a system of knowledge in higher education seekers to determine and correctly assess the patient's condition when prescribing contraceptives; the ability to correctly diagnose the need for medication by the patient; ability to discuss the purpose of contraceptives; assess not only the diagnostic criteria for the appointment of drugs, but also the psycho-emotional state of the patient at the time of appointment of contraceptives; ability to justify the need to use different methods of contraception. Forms the ability to interpret traditional and new research, which are used to diagnose menstrual disorders and psycho-emotional state of patients who choose a contraceptive.

**Competences**, which are formed by the discipline:

- *integral:* Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general:*

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- *professional:*

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 12. Ability to determine the management tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning and contraceptive counseling skills.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 10. Know the problems of environmental protection and ways to preserve it. Be able to form requirements for themselves and others to preserve the environment. Make proposals to the relevant authorities and institutions on measures to preserve and protect the environment. Be responsible for the implementation of environmental protection measures within its competence.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2). Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis.

PLO 22. Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning counseling; to select a modern method of contraception for different categories of the population.

**Elaborator:** Department of Obstetrics and Gynecology №1 (N.A.Godlevska)

## SUMMARY OF THE ELECTIVE COURSE

### MODERN PERINATOLOGY

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 89 «Modern perinatology» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** study the basics of perinatology for the reduce morbidity, mortality in the perinatal period and improve standards of qualified care during pregnancy, childbirth and the postnatal period. Nearly 40% of children, who die before one year old, have perinatal causes of death (genetic pathology, impaired formation and development of vital organs and systems). The discipline helps to assimilate the knowledge of the new and modern methods of screening and diagnosis of prenatal stage of development.

**Main tasks:** formation the system of knowledge about modern methods of perinatal diagnosis (non-invasive: determination of HCG, PAPP, alpha-fetoprotein (AFP), NIPT (non-invasive prenatal test of fetal DNA), ultrasound examination, Doppler ultrasound, cardiotocography; invasive: percutaneous umbilical blood sampling, placentocentesis, chorionic villus sampling (cvs), amniocentesis, fetoscopy). The ability to interpret traditional and modern examinations wich used for screening and diagnosis of defects and monitoring of fetal development.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 7. Ability to diagnose emergencies.

PC 11. Skills of medical manipulations.

PC 12. Ability to determine the management tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning and contraceptive counseling skills.

PC 17. Ability to keep medical records.



### **Program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 7. Know the basics of information and communication technologies and be able to apply them in professional activities.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4, 5, 11, 17, 31, 32, 54).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 1, 6, 33) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 204-235). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4, 5, 11, 17, 31, 32, 54) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 204-235) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 204-235) by making an informed decision and logical analysis.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 30) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 21. Perform medical manipulations (according to list 5: 12, 16, 19, 21, 22, 23, 25, 26, 27) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

PLO 22. Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning counseling; to select a modern method of contraception for different categories of the population.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical

records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**Elaborator:** Department of obstetrics and gynecology № 2 (docent Balabueva S.V.)

**SUMMARY OF THE ELECTIVE COURSE**  
**CLINICAL PARASITOLOGY AND TROPICAL MEDICINE**  
training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 90 «Clinical parasitology and tropical medicine»** belongs to  
subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The discipline lays the foundations of specialized knowledge to understand the causes and mechanisms of tropical diseases, etiological factors, mechanisms and factors of their transmission, the main links of pathogenesis, patterns of modern disease, identifying relationships between clinical features and the state of the immune system, complications, complicating their course, the principles of diagnosis and treatment of this category of patients in the field of evidence-based medicine.

The discipline is a link between theoretical and clinical disciplines that form the profile of the master of medicine.

**Main tasks:** to teach foreign students to carry out diagnosis of tropical diseases in time, perform their treatment and prevention.

It forms the ability to interpret traditional and new specific (virological, bacteriological, parasitological) diagnostical procedures used to diagnose infectious diseases in countries with tropical climates, monitoring epidemiological analysis, preventive measures to prevent tropical diseases, the choice of treatment tactics etiotropics.

**Competences**, which are formed by the discipline:

- **integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

- **general:**

GC 1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC 2. Ability to apply knowledge in practical situations.

GC 3. Knowledge and understanding of the subject area and understanding of professional activity.

GC 4. Ability to adapt and act in a new situation.

GC 5. Ability to make informed decisions; work in a team; interpersonal skills.

GC 6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC 7. Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

GC 8. Definiteness and persistence in terms of set tasks and responsibilities.

GC 9. The ability to act socially responsibly and consciously.

GC 10. The desire to preserve the environment.

- **professional:**

PC 1. Skills of interviewing and clinical examination of patients.

PC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC 4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC 5. Ability to determine the type of nutrition in the treatment of diseases.

PC 6. Ability to determine the principles and type of treatment of diseases.

PC 7. Ability to diagnose emergencies.

- PC 8. Ability to determine the tactics of emergency medical care.
- PC 9. Skills in providing emergency medical care.
- PC 11. Skills of medical manipulations.
- PC 13. Ability to carry out sanitary and hygienic and preventive measures.
- PC 14. Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.
- PC 15. Ability to determine the tactics of management of persons subject to dispensary supervision.
- PC 16. Ability to conduct a medical examination.
- PC 17. Ability to keep medical records.
- PC 18. Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.
- PC 19. Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.
- PC 21. Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

**-program learning outcomes**

PLO 1. Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO 2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO 3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO 4. Know the types and methods of adaptation, principles of action in a new situation. To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity. Establish appropriate connections to achieve results. Be responsible for the timely use of self-regulatory methods.

PLO 5. Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

PLO 6. Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

PLO 8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

PLO 9. Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

PLO 11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO 12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 4-20, 21, 26, 29-40, 42, 44, 46-49).

PLO 13. Identify the leading clinical symptom or syndrome (according to list 1: 2, 3, 6-7,9-11, 14-17, 19-26, 28-32, 34-37, 40-42, 47, 49, 51-56) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 21, 26, 28, 32- 36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203). Assign laboratory and / or instrumental examination of the patient (according to list 4: 4-20, 21, 26, 29-40, 42, 44, 46-49) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 1, 26, 28, 32- 36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) by making an informed decision and logical analysis.

PLO 14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 1, 26, 28, 32- 36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO 15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 1, 26, 28, 32- 36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO 16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 1, 26, 28, 32- 36, 59, 63, 64, 71, 73, 82, 83, 92, 94, 101-102, 118, 166-203) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO 17. Establish a diagnosis of an emergency (according to list 3: 3-5, 7, 8, 9, 16, 18-20, 23, 27, 31, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO 18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 3-5, 7, 8, 9, 16, 18-20, 23, 27, 31, 35) in a limited time with the help of standard schemes.

PLO 19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1-5, 7, 8, 16, 18-20, 22, 23, 24, 27, 31, 35) in a limited time with the help of standard schemes.

PLO 20. Organize medical and evacuation measures among the population and servicemen, in emergency situations, including in the field, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.

PLO 22. Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning counseling; to select a modern method of contraception for different categories of the population.

PLO 23. To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

PLO 24. Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (according to list 2: 26, 28, 32- 36, 59, 71, 82, 92, 118, 166-203) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (according to list 2: 28, 35-36, 71, 166-203), primary anti-epidemic measures in the center of infectious disease.

PLO 25. To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

PLO 26. Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

PLO 27. Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

PLO 28. Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

PLO 30. To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Infectious Diseases with the Course of Epidemiology (Prof., PhD Moroz L. V.)

## SUMMARY OF THE ELECTIVE COURSE

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course: EC 91 «HIV-infection: antiretroviral therapy, actual treatment and prevention strategies»** belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

### **Objectives:**

The discipline develops practical skills in 5th year students, aimed at timely diagnosis of HIV infection, timely prescription, monitoring the antiretroviral therapy (ART) effectiveness, management of side effects and ART failure. The discipline presents information about actual modern prevention strategies of medication and non- medication prevention of HIV infection and develops practical skills for their application.

### **Main tasks:**

formation of higher education students' knowledge of timely screening and verification of HIV diagnosis; acquaintance with classes of antiretroviral drugs, the mechanism of their action and the principles of combination of each of drugs into ART regimens; formation of skills in ART monitoring, diagnosis of ART adverse reactions and acquaintance with methods of their correction; consideration of issues of monitoring the effectiveness and detection of ART failure, including ways to its monitoring and correction. Formation of knowledge about the types of actual modern medication prophylaxis of HIV infection and skills about the features of its use (pre-exposure prophylaxis, post-exposure prophylaxis, prevention of mother-to-child transmission of HIV).

**Competences**, which are formed by the discipline:

- *integral*: Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge

- *general*:

**GC 1.** Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

**GC 2.** Ability to apply knowledge in practical situations.

**GC 3.** Knowledge and understanding of the subject area and understanding of professional activity.

**GC 4.** Ability to adapt and act in a new situation.

**GC 5.** Ability to make informed decisions; work in a team; interpersonal skills.

**GC 6.** Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

**GC 7.** Skills in the use of information and communication technologies; ability to search, process and analyze information from various sources.

**GC 8.** Definiteness and persistence in terms of set tasks and responsibilities.

**GC 9.** The ability to act socially responsibly and consciously.

- *professional*:

**PC 1.** Skills of interviewing and clinical examination of patients.

**PC 2.** Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

**PC 3.** Ability to establish a preliminary and clinical diagnosis of the disease.

**PC 4.** Ability to determine the required mode of work and rest in the treatment of diseases.

**PC 5.** Ability to determine the type of nutrition in the treatment of diseases.

**PC 6.** Ability to determine the principles and type of treatment of diseases.

**PC 7.** Ability to diagnose emergencies.

**PC 8.** Ability to determine the tactics of emergency medical care.

**PC 9.** Skills in providing emergency medical care.

**PC 10.** Ability to carry out medical and evacuation measures.

**PC 11.** Skills of medical manipulations.

**PC 12.** Ability to determine the management tactics of physiological pregnancy, physiological childbirth and the postpartum period. Family planning and contraceptive counseling skills.

**PC 13.** Ability to carry out sanitary and hygienic and preventive measures.

**PC 14.** Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases.

**PC 15.** Ability to determine the tactics of management of persons subject to dispensary supervision.

**PC 16.** Ability to conduct a medical examination.

**PC 17.** Ability to keep medical records.

**PC 18.** Ability to conduct epidemiological and medical-statistical studies of public health; processing of social, economic and medical information.

**PC 19.** Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population.

**PC 20.** Ability to analyze the activities of a doctor, department, health care institution, to take measures to ensure the quality of medical care and improve the efficiency of medical resources.

**PC 21.** Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

#### **-program learning outcomes**

**PLO 1.** Be able to analyze information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

**PLO 2.** Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

**PLO 3.** Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

**PLO 5.** Know the tactics and strategies of communication, laws and ways of communicative behavior. Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork. Organize the work of medical staff in a team, unit, institution. Be responsible for the choice and tactics of communication.

**PLO 6.** Have sufficient knowledge of the state language and basic knowledge of a foreign language. Be able to apply knowledge of the state language, both orally and in writing, be able to communicate in a foreign language. Use the state language in professional and business communication and in the preparation of documents. Use a foreign language in professional activities. To be responsible for fluency in the state language, for the development of professional knowledge.

**PLO 8.** Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfillment of the tasks set.

**PLO 9.** Know social and community rights and responsibilities. Develop a sufficient level of legal culture necessary to maintain a balance of relations between the subjects of medical relations and respect for human rights in the field of health care. Be responsible for civic position and activities.

**PLO 11.** Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

**PLO 12.** Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies.



**PLO 13.** Identify the leading clinical symptom or syndrome (lymphadenopathy, fever) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (Disease caused by human immunodeficiency virus (HIV)). Assign laboratory and / or instrumental examination of the patient (creatinine, urea blood and urine, glomerular filtration rate, blood aminotransferases, total blood bilirubin and its fractions, coagulogram, blood uric acid, blood alkaline phosphatase, general blood test, general analysis of urine, general analysis of cerebrospinal fluid, general immunological profile of blood, serological reactions in infectious diseases, rapid tests for viral diseases, amplification methods in infectious diseases (PCR), microbiological study of biological fluids and secretions, methods of instrumental visualization of abdominal organs; methods of instrumental visualization of the thoracic cavity; methods of instrumental visualization of the genitourinary system; methods of instrumental visualization of the skull, spine, spinal cord, bones and joints) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (Disease caused by human immunodeficiency virus (HIV)) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (Disease caused by human immunodeficiency virus (HIV)) by making an informed decision and logical analysis.

**PLO 14.** To determine the necessary mode of work and rest in the treatment of the disease (Disease caused by human immunodeficiency virus (HIV)) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

**PLO 15.** To determine the necessary medical nutrition in the treatment of the disease (Disease caused by human immunodeficiency virus (HIV)) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

**PLO 16.** To determine the principles and mode of treatment (conservative, operative) of the disease (Disease caused by human immunodeficiency virus (HIV)) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

**PLO 17.** Establish a diagnosis of an emergency (acute anaphylactic reactions, convulsive syndrome) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

**PLO 18.** To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (acute anaphylactic reactions, convulsive syndrome) in a limited time with the help of standard schemes.

19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (acute anaphylactic reactions, convulsive syndrome) in a limited time with the help of standard schemes.

**PLO 19.** Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (acute anaphylactic reactions, convulsive syndrome) in a limited time with the help of standard schemes.

**PLO 21.** Perform medical manipulations (administer drugs) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**PLO 22.** Assess the general condition of pregnant women, mothers and parturients in a health care facility on the basis of anamnestic data, general examination, bimanual, external and internal obstetric examination by making an informed decision, using a standard procedure. In a medical institution on the basis of anamnestic data, general examination and gynecological examination of a woman, by making an informed decision, using a standard procedure: to assess the patient and medical criteria for the acceptability of the method of contraception; determine the patient's examination plan before choosing a method of contraception; provide family planning counseling; to select a modern method of contraception for different categories of the population.

**PLO 23.** To form, in the conditions of a health care institution, its subdivision on production, using the generalized procedure of an assessment of a state of human health, among the fixed contingent of the population dispensary groups of patients; groups of healthy people subject to dispensary supervision. Implement a system of anti-epidemic and preventive measures within the

primary health care. Implement a system of primary prevention measures within the primary health care. Organize secondary and tertiary prevention measures among the assigned contingent of the population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care).

**PLO 24.** Plan and implement preventive and anti-epidemic measures to prevent the spread of infectious diseases (Disease caused by human immunodeficiency virus (HIV) in a health care facility based on the results of epidemiological surveys of infectious diseases, epidemiological analysis, using existing preventive and anti-epidemic methods. Identify in the health care facility, using statistical and laboratory methods of risk group, risk areas, time of risk, risk factors and carry out epidemiological analysis of infectious diseases of the population. Carry out detection and early diagnosis of infectious diseases (Disease caused by human immunodeficiency virus (HIV), primary anti-epidemic measures in the center of infectious disease.

**PLO 25.** To determine the tactics of examination and secondary prevention of patients subject to dispensary supervision; tactics of examination and primary prevention of healthy persons subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

**PLO 26.** Determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care facility on the basis of data on the disease and its course, features of professional activity. Maintain medical records of the patient and the population on the basis of regulatory documents, using standard technology. Prepare reports on personal production activities, using official accounting documents in the standard form.

**PLO 27.** Conduct screening for major non-communicable diseases. Evaluate the dynamics and in comparison with the average static data of morbidity, including chronic non-communicable diseases, disability, mortality, integrated health indicators; identify risk factors for the occurrence and course of diseases; to form risk groups of the population. Determine the source and / or location of the required information depending on its type; receive the necessary information from a specific source; analyze the information obtained.

**PLO 28.** Identify negative environmental factors on the basis of data from the health institution; analyze the state of health of a certain contingent; determine the relationship between the state of the environment and the state of health of a particular contingent; develop preventive measures based on data on the relationship between the state of the environment and the state of health of a particular contingent. Analyze the incidence of the population, identifying risk groups, risk areas, time of risk, risk factors in the health care institution, its unit, using statistical and laboratory methods. Assess the impact of socio-economic and biological determinants on the health of the individual, family, population in the service area.

**PLO 29.** Investigate 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. Carry out the selection and use of unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine; participate in the development of local protocols for medical care. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Estimate the cost of medical services; substantiate the choice of an adequate method of financing (payment) and the choice of rational forms of organization of medical services. Apply methods of economic analysis when choosing methods of diagnosis, prevention, treatment, rehabilitation.

**PLO 30.** To form rational medical routes of patients; organize interaction with colleagues and your own and other institutions, organizations and institutions; apply tools to promote medical services on 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.

**Elaborator:** Department of Infection Diseases (assistant, Tetiana Melnyk )

**SUMMARY OF THE ELECTIVE COURSE**  
**MINIMALLY INVASIVE TECHNOLOGIES IN SURGERY**

training professionals of second (Master's degree) level of higher education  
educational qualification «Master of Medicine»  
branch of knowledge 22 «Health Care»  
Specialty 222 «Medicine»

**Summary of the course:** EC 92 «Minimally invasive technologies in surgery» belongs to subjects of professional training in Specialty 222 «Medicine».

**Final Control** – credit.

**Objectives:** The course allows the student to define the concepts of minimally invasive technology, advantages and imperfection of minimally invasive procedures. Students will know the modern minimally invasive diagnostic and therapeutic methods, will determine diagnostic and therapeutic tactics to common diseases, according to modern advances in minimally invasive medicine. The discipline allows to systematize the knowledge gained during the previous years of study, as well as to use it in clinical practice, considering to current trends in the minimally invasive medicine.

**Main tasks:** knowledge of the principles of of minimally invasive technologies, the main advantages and imperfection of minimally invasive procedures, its opportunities, the role of endoscopy in the diagnosis of inflammatory and non-inflammatory diseases of the digestive tract, including early diagnosis of malignant tumors; possibilities of endoscopic treatment of malignant neoplasms, gastrointestinal bleeding. The tasks of the discipline also include acquainting students with the methods of endoscopic retrograde cholangiopancreatography, endoscopic possibilities of treatment of non-neoplastic diseases of the pancreato-biliary zone and methods of radical and symptomatic treatment of tumors of the same localization; complications after ERCP, prognosis and prevention. A special place among the tasks of the course is to acquaint students with current trends in surgery: the place of laparoscopy in the diagnosis of acute and chronic abdominal diseases, the basic principles of laparoscopic surgery, connection and separation of tissues in laparoscopy. Students also have the opportunity to get acquainted with the diagnostic and therapeutic possibilities of bronchoscopy, the role of thoracoscopy in the diagnosis of diseases of the respiratory system, methods of thoracoscopic surgery, endovascular methods of diagnosis and treatment. A special place in the tasks of the discipline belongs to mastering the practical skills of minimally invasive diagnostic and treatment technologies (including training on simulators).

**Competences**, which are formed by the discipline:

– **Integral:** Specialized conceptual knowledge, which includes modern scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and research, critical understanding of problems in the field and on the border of fields of knowledge.

– **General:**

GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and be up to date trained.

GC2. Ability to apply knowledge in practical situations.

CC3. Knowledge and understanding of the subject area and understanding of professional activity.

GC4. Ability to adapt and act in a new situation.

GC5. Ability to make informed decisions; work in a team; interpersonal skills.

GC6. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language.

GC7. Skills in the use of information and communication technologies; ability to search, process and analyse information from various sources.

GC8. Definiteness and persistence in terms of set tasks and responsibilities.

GC9. The ability to act socially responsibly and consciously.

GC10. The desire to preserve the environment.

– **Professional:**

PC1. Skills of interviewing and clinical examination of patients.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

PC3. Ability to establish a preliminary and clinical diagnosis of the disease.

PC4. Ability to determine the required mode of work and rest in the treatment of diseases.

PC5. Ability to determine the type of nutrition in the treatment of diseases.

PC6. Ability to determine the principles and type of treatment of diseases.

PC7. Ability to diagnose emergencies.

PC8. Ability to determine the tactics of emergency medical care.

PC9. Skills in providing emergency medical care.

PC11. Skills of medical manipulations.

**Program learning outcomes<sup>^</sup>**

PLO1. Be able to analyse information, make informed decisions, be able to acquire modern knowledge. Establish appropriate connections to achieve goals. Be responsible for the timely acquisition of modern knowledge.

PLO2. Have specialized conceptual knowledge acquired in the learning process. Be able to solve complex tasks and problems that arise in professional activities. Ability to effectively form a communication strategy in professional activities; clear and unambiguous communication of own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists. Responsible for making decisions in difficult conditions.

PLO3. Have a comprehensive knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLO8. Know professional responsibilities, be able to determine the purpose and objectives of their implementation, to be responsible for the quality fulfilment of the tasks set.

PLO11. Collect data on patient complaints, medical history, life history, conduct a physical examination of the patient, using standard research algorithms based on knowledge about the person, his organs and systems, in a health care facility or outside it.

PLO12. Evaluate information about the diagnosis, using a standard procedure based on the results of laboratory and instrumental studies (according to list 4: 1, 2, 6, 7, 13-22, 26-29, 31, 32, 35, 46, 47, 52).

PLO13. Identify the leading clinical symptom or syndrome (according to list 1: 3-8, 13-15, 20-30, 33, 36, 44-46, 50-51, 54, 55) by making an informed decision. Establish the most probable or syndromic diagnosis of the disease (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-102, 156, 196). Assign laboratory and / or instrumental examination of the patient (according to list 4: 1, 2, 6, 7, 13-22, 26-29, 31, 32, 35, 46, 47, 52) by making an informed decision, by comparing with the standards. Carry out differential diagnosis of diseases (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-102, 156, 196) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient. Establish a preliminary clinical diagnosis (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-102, 156, 196) by making an informed decision and logical analysis.

PLO14. To determine the necessary mode of work and rest in the treatment of the disease (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-102, 156, 196) in the health care facility, outside it and at the stages of medical evacuation on the basis of a previous clinical diagnosis.

PLO15. To determine the necessary medical nutrition in the treatment of the disease (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-

102, 156, 196) in the health care facility, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis by making an informed decision on existing algorithms and standard schemes.

PLO16. To determine the principles and mode of treatment (conservative, operative) of the disease (according to list 2: 18, 55, 57, 59, 60, 63, 64, 66, 68, 69, 74, 76, 78, 80, 81, 83-94, 96, 97, 99-102, 156, 196) in the health care institution, outside it and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, by making an informed decision according to existing algorithms and standard schemes.

PLO17. Establish a diagnosis of an emergency (according to list 3: 1, 3, 8, 11, 16-19, 22, 23, 28, 31, 33, 35) by making an informed decision and assessment of the person's condition, under any circumstances (health care facility and beyond), including in emergency situations, in field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

PLO18. To determine the tactics of providing emergency and urgent medical care on the basis of the diagnosis of emergency (according to list 3: 1, 3, 8, 11, 16-19, 22, 23, 28, 31, 33, 35) in a limited time with the help of standard schemes.

PLO19. Provide emergency and urgent medical care by making an informed decision based on the diagnosis of emergency (according to list 3: 1, 3, 8, 11, 16-19, 22, 23, 28, 31, 33, 35) in a limited time with the help of standard schemes.

PLO21. Perform medical manipulations (according to list 5: 1-3, 5-8, 10, 11, 13, 17, 20) on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.

**Elaborator:** Department of endoscopic and cardiovascular surgery (assistant, PhD V.V. Sobko).