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SYLLABUS

INTERNATIONAL EUROPEAN UNIVERSITY

SCHOOL OF MEDICINE

INTEGRATED MEDICAL PRACTICE WITH A CLINICAL SIMULATION WORKSHOP

2023

SYLLABUS

Discipline	INTEGRATED MEDICAL PRACTICE WITH A CLINICAL SIMULATION WORKSHOP
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1 Brief summary of the discipline

Industrial medical practice with a functional diagnostics workshop involves the completion of practical training
The practical training is divided into the following sections, which in turn are divided into modules:
1) Section "Industrial medical practice": the objectives of the practice are to consolidate the knowledge and skills acquired in the study of basic clinical and theoretical disciplines (examination of the patient, clinical diagnosis, prescription of treatment) and further improvement of practical skills, familiarisation with the organisation of medical care and working conditions of a doctor in various departments of a medical institution, as well as consolidation of skills in sanitary and educational work.
- Module 1: Industrial medical practice: acting family doctor (therapeutic aspect) ;
- Module 2: Industrial medical practice: acting district surgeon;
- Module 3: Industrial medical practice: acting district paediatrician;
- Module 4: Industrial medical practice in obstetrics (acting obstetrician).
2) The section "Functional diagnostics workshop" involves the acquisition of practical skills by students to determine the diagnostic capabilities of functional research methods in internal medicine, indications and contraindications, methods of conducting, algorithms for interpreting the results obtained with further interpretation of the nature and severity of organ dysfunction in patients at different stages of the disease, forming an understanding of the relationship between the detected instrumental changes and the pathogenesis and clinical manifestations of the disease. The workshop is held in the relevant departments of medical institutions that are clinical bases of the International European University.

2 Competences and learning outcomes

PLO-1	Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. Be responsible for professional development, the ability to further professional learning with a high level of autonomy.
PLO-3	Specialised conceptual knowledge that includes scientific achievements in the field of healthcare and is the basis for research, critical thinking in the field of medicine and related interdisciplinary issues.
PLO-4	Identify and identify the leading clinical symptoms and syndromes (according to list 1); using standard methods, using preliminary data from the patient's history, examination of the patient, knowledge of the person, his/her organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).
PLO-5	Collect complaints, anamnesis of life and disease, assess the patient's psychomotor and physical development, the state of organs and body systems, and evaluate information on the diagnosis (according to List 4) based on the results of laboratory and instrumental studies, taking into account the patient's age.
PLO-6	To establish the final clinical diagnosis by making an informed decision and analysing the obtained subjective and objective data of clinical, additional examination, conducting differential diagnosis, following the relevant ethical and legal standards, under the supervision of a supervising physician in a healthcare facility (according to list 2).
PLO-7	To prescribe and analyse additional (mandatory and optional) methods of examination (laboratory, functional and/or instrumental) (according to the list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).

2 Competences and learning outcomes

PLO-8	Determine the main clinical syndrome or the severity of the condition of the victim/survivor (according to list 3) by making an informed decision and assessing the person's condition under any circumstances (in a healthcare facility, outside it), including in an emergency situation and hostilities, in the field, in conditions of lack of information and limited time.
PLO- 9	Determine the nature and principles of treatment of patients (conservative, surgical) with diseases (according to list 2), taking into account the patient's age, in a health care facility, outside it and at the stages of medical evacuation, including in the field, based on a preliminary clinical diagnosis, observing the relevant ethical and legal standards, by making an informed decision according to existing algorithms and standard schemes, if necessary, expand the standard scheme, be able to justify personalised recommendations under the supervision of a medical supervisor.
PLO- 10	Determine the necessary work, rest and nutrition regime based on the final clinical diagnosis, in compliance with relevant ethical and legal standards, by making an informed decision based on existing algorithms and standardised schemes.
PLO- 14	Determine the tactics and provide emergency medical care for urgent conditions (according to list 3) in a time-limited environment in accordance with existing clinical protocols and treatment standards.
PLO- 16	Form rational medical routes for patients; organise interaction with colleagues in their own and other institutions, organisations and agencies; apply tools for promoting medical services on the market, based on an analysis of the needs of the population, in the conditions of functioning of a healthcare institution, its unit, in a competitive environment.
PLO- 17	Perform medical manipulations (according to List 5) in a healthcare facility, at home or at work based on a preliminary clinical diagnosis and/or patient's condition indicators by making an informed decision, following the relevant ethical and legal standards.
PLO- 18	Determine the state of functioning and limitations of a person's vital activity and the duration of disability with the preparation of relevant documents, in a healthcare facility, based on data on the disease and its course, the specifics of the person's professional activity, etc. Maintain medical records for the patient and the population on the basis of regulatory documents.
PLO- 21	Find the necessary information in professional literature and databases from other sources, analyse, evaluate and apply this information.
PLO- 22	Apply modern digital technologies, specialised software, statistical methods of data analysis to solve complex healthcare problems.
PLO- 24	Organise the required level of individual safety (own and of persons under his/her care) in the event of typical hazardous situations in individual field of activity.
PLO- 25	Clearly and unambiguously communicate own knowledge, conclusions and arguments on healthcare and related issues to specialists and non-specialists.
PLO- 27	Communicate fluently in the state language and English, both orally and in writing, to discuss professional activities, research and projects.
PLO- 28	Make effective decisions on healthcare issues, assess the resources required, and consider social, economic and ethical implications.

3 Content of practical classes| Section "Industrial medical practice"

Module 1: Industrial medical practice: acting family doctor (therapeutic aspect) ;
Module 2: Industrial medical practice: acting district surgeon;
Module 3: Industrial medical practice: acting district paediatrician;
Module 4: Industrial medical practice in obstetrics.

Module 1: Industrial medical practice: acting family doctor (therapeutic aspect)
Description of the module (abstract)
Industrial medical practice The module Acting family doctor provides for the mastering of practical skills by higher education students in accordance with the educational and professional programme 222 "Medicine". It is conducted at the time when the 5th year students of the School of Medicine have acquired knowledge of internal medicine.
- analyse the results of basic laboratory and instrumental research methods;
- identify the leading pathological symptoms and syndromes in the most common diseases;
- conduct differential diagnostics and make a preliminary diagnosis of the most common diseases;
- interpret the general principles of treatment, rehabilitation and prevention of the most common therapeutic diseases;
- master the methods of diagnosis and emergency care at the pre-hospital stage;
- master the necessary medical manipulations;
- learn how to keep medical records in a primary care centre or clinic;
- master the moral and deontological principles of a medical specialist and the principles of professional subordination
Industrial practice involves:
- study of the organisational structure of the primary health care centre or polyclinic and its individual units, as well as the documentation of the Ministry of Health of Ukraine regulating its work;
- participation in the outpatient care of sick and healthy adults by family doctors and specialists, mastering the skills of maintaining the necessary documentation by doctors of outpatient care facilities;
- mastering the rules of dynamic observation of sick and healthy people of certain groups, the possibilities of providing medical care in day care and home care;
- Participation in the development of the basic principles of a healthy lifestyle for the prevention of the most common diseases among the population;
- knowledge of the main manifestations, risk factors, principles of treatment of the most common diseases in order to prevent them, early detection and timely provision of necessary assistance.

№	Topic title	Number of hours
1	Principles of organising the provision of routine and emergency care on an outpatient basis. Reception of patients. Interviewing and physical examination of patients. Filling in the medical record of an outpatient. Determination of the scope of additional studies, evaluation of their results. Establishing a preliminary diagnosis. Determining the tactics of further treatment, rehabilitation, and prevention. Labour prognosis.	**3**
2	Work in the functional diagnostics room: assessment of external respiratory function, ECG, echocardiography, phonocardiography, X-ray and fluoroscopy of the chest, gastrointestinal tract, gallbladder and kidneys, esophagogastroduodenoscopy, colonoscopy.	**4**
3	Work in the physiotherapy room: participation in the following: direct current electrotherapy, pulsed currents of low and sound frequency, high-frequency electrotherapy, magnetotherapy, aero-ion therapy, ultrasound therapy, heat and water therapy procedures, etc.	**4**
4	Work in the emergency room of a polyclinic: examination of a patient, identification of syndromes and emergency conditions. Participation in the provision of emergency care in urgent situations: acute heart failure, hypertensive crisis, paroxysmal heart rhythm disorders, pulmonary embolism, asthma status, acute gastrointestinal bleeding, acute renal failure.	**4**
	Total per module	**15**

INDEPENDENT WORK

№	Topic title	Number of hours
1.	Preparing for practical classes.	5

2.	Participation in conducting outpatient appointments	12
3.	**Together**	**17**

List of theoretical questions for preparing higher education students for the final examination:

1. Epidemiology of hypertension and definition of the concept. Exogenous and endogenous risk factors for hypertension, methods of active detection, classification. Standards of examination of patients and their rehabilitation. Dynamic observation of people with risk factors and patients. Effectiveness of measures for primary and secondary prevention of hypertension.
2. Epidemiology and prevention of coronary heart disease. Risk factors for coronary heart disease and their correction. Diagnosis and treatment of various clinical forms of coronary heart disease in outpatient settings.
3. Clinical and expert characteristics of cardiovascular diseases.
4. Methods for determining morphological changes and functional disorders in cardiovascular diseases.
5. Indications and contraindications for work in cardiovascular diseases.
6. Criteria for determining disability groups in cardiovascular diseases.
7. Ways of rehabilitation of patients.
8. Epidemiology of bronchial asthma and definition of the concept. Exogenous and endogenous risk factors for asthma, methods of active detection, classification. Standards of examination of patients and their rehabilitation. Dynamic observation of people with risk factors and patients. Effectiveness of measures for primary and secondary prevention of asthma.
9. COPD: risk factors, diagnosis, treatment and prevention.
10. Epidemiology and primary prevention of diseases of the digestive tract.
11. Clinical and expert characteristics of chronic lung diseases. Criteria for determining disability groups. Labour prognosis.
12. Helicobacter pylori associated diseases of the digestive tract: diagnosis, treatment, prevention.
13. Epidemiology of chronic hepatitis and definition of the concept. Exogenous and endogenous risk factors for CH and CKD, methods of active detection, classification. Standards of examination of patients and their rehabilitation. Dynamic observation of people with risk factors and patients. Effectiveness of measures for primary and secondary prevention of CVD.
14. Chronic pancreatitis and biliary tract diseases - diagnostic criteria, principles of treatment. ITU in diseases of the gallbladder and pancreas.
15. Exo- and endogenous risk factors for thyroid diseases, diagnosis, prevention, treatment.
16. Classification, diagnosis and treatment of diabetes mellitus of various types.
17. Algorithms for differential diagnosis of jaundice.
18. Algorithms for differential diagnosis of joint syndrome.

List of practical skills for the final control:

1. Conducting a medical appointment at the PHC centre under the supervision of a general practitioner - family doctor and drawing up: a medical passport of the site
2. Completion of a specialised site log, a house-call log, and a daily patient record sheet.
3. Preparation of a monthly work plan for a doctor
4. Preparation of medical records of outpatients and epicrises.
5. Filling in statistical cards for registration of final (clarified) diagnoses.
6. Providing medical care to patients at home under the supervision of a general practitioner - family doctor.
7. Organising a home hospital and necessary additional examinations and consultations at home
8. Provision of medical care in the day hospital of the primary care centre under the supervision of a day hospital doctor
9. Organisation of emergency care at home and in the PHC centre, learning the rules of hospitalisation in case of urgent need.
10. Registration of temporary disability, certificate of temporary disability
11. Preparation of documents for referral of a patient to the MSE (registered letter) to determine the degree of disability
12. Writing prescriptions and filling out prescriptions for free medicines
13. Conducting dynamic monitoring of patients and disabled people (registration by nosology, conducting routine examinations of patients, treatment, consultations of narrow specialists)

14. Preparation of a control card for dynamic accounting
15. Draw up a route of health improvement measures, restorative nutrition, sanatorium and resort selection for various diseases
16. Preparation of certificates for the need for sanatorium treatment and sanatorium cards
17. Improve the interpretation of the results of laboratory and instrumental studies: complete blood count, biochemical blood count, general urinalysis, Zemnytsky and Nechyporenko test results, fecal analysis and coprogram, sputum analysis, pleural and ascitic fluid analysis, gastric secretion and bile analysis
18. Evaluation of the results of examination of the external respiratory function, ECG, Holter ECG monitoring, blood pressure, echocardiography, radiography and fluoroscopy of the chest, gastrointestinal tract, gallbladder and kidneys, esophagogastroduodenoscopy, colonoscopy.

4 Content of practical classes| acting district surgeon

Module 2 .acting district surgeon, examines surgical care of patients in a polyclinic, which has always been considered the leading link in public health care. Up to 85% of patients start and finish their treatment in polyclinics. A sick person is not isolated from the social environment in which he or she lives. However, the outpatient service has its own peculiarities. These features, which shape the nature of a doctor's work, include: a strict limitation on the time available to work with a patient, a limited ability to correct inaccuracies in a doctor's decision, and the use of modern diagnostic and treatment methods that are not always available. Working conditions formulate requirements for the personality of a polyclinic surgeon. Mastering the module material will provide an opportunity to gain practical skills and develop professional skills in the diagnosis and treatment of surgical diseases.

№	Topic title	Hours
1.	Principles of organisation of surgical care in outpatient settings. Medical ethics and deontology. Questions. Regulatory documents of the Ministry of Health of Ukraine that regulate the work of a district surgeon. Concepts and rules of compliance with the principles of ethics and deontology in the work of a district surgeon.	3
2.	Issues in the examination of vital activity and working capacity of surgical patients Question. Rules for issuing temporary disability certificates. Contingents of surgical patients subject to dispensary supervision. Preparation of the necessary documents for the MSEC.	4
3.	**P**urulent diseases of the skin and soft tissues. Clinic, diagnosis, treatment. Tetanus. Questions. Furuncle. Carbuncle. Abscess. Phlegmon. Erysipelas. Erysipeloid. Hydradenitis. Anaerobic clostridial and nonclostridial infection: necrotising cellulitis fasciitis. Clinic, diagnosis, treatment. Empirical and targeted antibiotic therapy. Antibiotic resistance and ways to prevent its development. Pravets, rules of active and passive immunisation.	3
4.	Acute surgical diseases of the abdominal and thoracic cavity. Clinic, diagnosis, treatment. Questions. Definition of acute abdomen. Differential diagnosis of acute diseases of the abdominal cavity. Spontaneous pneumothorax, acute and chronic lung abscess, pulmonary gangrene, acute and chronic pleural empyema. Clinic, diagnosis, treatment tactics. Indications and technique of pleural puncture.	4
5.	Injuries of the abdominal, thoracic and musculoskeletal system. Diagnosis, treatment tactics. Questions. Hemoperitonium in trauma: clinic, diagnosis, treatment tactics. FAST protocol. Emergency care for victims with abdominal injuries. Methods of research in case of damage to the OHC. Rib fractures, floating rib fractures. Pneumothorax, haemothorax, clinic, diagnosis, treatment, emergency care. Transport immobilisation in case of limb fractures.	4
	Total:	18

INDEPENDENT WORK

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№	Topic	Number of hours
	Study of topics that are not included in the classroom plan:	
1.	New technologies in surgery. Modern methods of diagnosis and treatment.	4
2.	Obstructive jaundice. Causes of occurrence. Differential diagnostic tactics. Modern approaches to treatment.	5
3.	Obliterating diseases of the arteries.	4
4.	Varicose veins of the lower extremities.	4
	Total:	**17**

List of theoretical questions for the final test.

1. Furuncle. Carbuncle. Hydradenitis. Clinic, diagnosis, treatment.
2. Abscess. Phlegmon. Clinic, diagnosis, treatment.
3. Panaritium. Erysipeloid. Clinic, diagnosis, treatment.
4. Erysipelas. Clinic, diagnosis, treatment.
5. Anaerobic clostridial and nonclostridial infection. Necrotic cellulitis. Necrotising fasciitis. Gas gangrene. Clinic, diagnosis, treatment.
6. Clinical and laboratory signs of systemic inflammatory response syndrome, factors that contribute to it.
7. Types of abdominal pain. Definition of acute abdomen.
8. Objective examination of patients with acute abdominal pain.
9. Differential diagnosis of acute diseases of the abdominal cavity by the nature of pain.
10. Tactics of treatment of acute appendicitis, acute cholecystitis, acute pancreatitis, peritonitis, acute intestinal obstruction.
11. Special instrumental methods of examination of the oesophagus and stomach.
12. Types of jaundice, causes of occurrence. Differential diagnosis of jaundice.
13. Instrumental methods of examination in diseases of the liver and biliary tract (ultrasound, CT, MRI, ERCP).
14. Therapeutic tactics for obstructive jaundice of non-tumour and tumour genesis.
15. The main etiological factors of bleeding from the upper and lower gastrointestinal tract.
16. Clinical signs of bleeding from the upper and lower gastrointestinal tract.
17. Classification of injuries of the abdominal cavity, clinic, diagnosis.
18. Abdominal trauma. Urgent diagnosis and FAST protocol.
19. Acute and chronic lung abscess. Clinic, diagnosis, treatment.
20. Spontaneous pneumothorax, bullous disease. Clinic, diagnosis, treatment.
21. Pulmonary gangrene, etiology, pathogenesis. Clinic, diagnosis, treatment.
22. Acute and chronic pleural empyema, etiology, pathogenesis.
23. Classification of injuries of the chest organs.
24. Urgent diagnosis of injuries of the OHC.
25. Rib fractures, floating rib fractures. Clinic, diagnosis, treatment.
26. Pneumothorax. Clinic, diagnosis, treatment. Emergency care for open and tension pneumothorax
27. Hemothorax. Clinic, diagnosis, treatment.
28. Etiology and pathogenesis of obliterating atherosclerosis and endarteritis. Clinic, diagnosis, treatment.
29. Etiology, pathogenesis, clinic and diagnosis of varicose veins of the lower extremities.
30. Thrombophlebitis of the lower extremities. Clinic, diagnosis, treatment.

31. Phlebothrombosis of the veins of the lower extremities. Clinic, diagnosis, treatment.
32. Stages of primary surgical treatment of wounds. Types of surgical sutures.

List of practical skills for the final control.

1. Conducting a physical examination of patients.
2. Identification of key clinical and anamnestic signs of acute surgical pathology.
3. Interpretation of the results of laboratory and instrumental research methods.
4. Substantiation and formulation of a preliminary diagnosis.
5. Puncture of the pleural cavity in tension pneumothorax.
6. Application of occlusive dressing in case of open pneumothorax.
7. Novocaine blockade in case of rib fractures.
8. Fixation of the chest wall in case of floating rib fractures.
9. Methods of temporary stop of external bleeding.
10. Conducting local anaesthesia.
11. Work in the dressing room: performing dressings, opening abscesses, primary surgical treatment of wounds, applying and removing sutures, etc.
12. Determination of indications, types and methods of tetanus prophylaxis.
13. Emergency care for burns and frostbite.
14. Conducting artificial respiration and indirect heart massage.
15. Preparation of medical documentation. Filling out an outpatient card, a temporary disability certificate, a letter of authorisation to the MSEC, etc.
16. Methods of breast palpation.
17. Methods of conducting a finger examination of the rectum.
18. Methods of palpation of the thyroid gland.

5 Content of practical classes| acting district paediatrician

The industrial medical practice of the acting district paediatrician is based on the knowledge gained in the study of the disciplines "Propedeutics of Paediatrics" and "Paediatrics", continues the study of the main diseases in children and improves the practical skills used in the practical activities of a paediatrician. The study of the discipline is based on modern principles of evidence-based medicine and standards accepted in international clinical practice.
Module 3 Performing the duties of a district paediatrician is based on the previous study of human anatomy, biological and bioinorganic chemistry, microbiology, virology and immunology, pharmacology and is integrated with these disciplines, as well as on the study of propaedeutic and clinical disciplines of medical profile: Propaedeutics of Paediatrics, Paediatrics with Neonatology and Paediatric Infectious Diseases and is integrated with these disciplines.
The knowledge gained in the course of studying the modules will be used in further professional activities.

№	Topic title	Number of hours
	Module 3: Medical practice of an acting district paediatrician	**25**
1	Examination of healthy and sick children.	3
2	Evaluation of clinical (general blood, urine, faecal analysis) and biochemical tudies of patients (blood protein content and fractions, acute phase indicators, blood urea and creatinine, electrolytes, glucose, blood bilirubin and its fractions, coagulogram, blood lipid profile), microbiological examination of biological fluids and secretions, polymerase chain reaction, enzyme-linked immunosorbent assay, general analysis of sternum and	4

	cerebrospinal fluid.	
3	Evaluation of data from instrumental research methods: X-ray examination of the chest, abdominal cavity, joints, CT of the central nervous system, X-ray contrast angiography, ECG, echocardiography, ultrasound of the abdominal cavity abdominal cavity.	3
4	Knowledge of the timing of preventive vaccinations. Indications and contraindications for vaccination.	4
5	Justification and formulation of the clinical diagnosis.	3
6	Interpretation of general principles of treatment, primary and secondary prevention of major childhood diseases in outpatient settings.	4
7	Assistance in case of emergency conditions in children (convulsive and hyperthermic syndromes, collapse, pulmonary edema, bronchospasm, asthmatic status, acute heart failure, infectious toxic shock, acute renal failure, acute liver failure, acute adrenal insufficiency, complications of vaccination and drug therapy: urticaria, Quincke's edema, anaphylactic shock; ketoacidotic coma, hypoglycaemic coma, bleeding, etc.)	4

INDEPENDENT WORK

№	Content of self-study	Hours
Module 3: Acting district paediatrician		
1	Structure and organisation of the work of the children's polyclinic site. 1. Structure of paediatric site. 2. Documentation of the district paediatrician. 3. Participation in the preparation of basic documents in the work of a district paediatrician. 4. Diagnosis and treatment of major childhood diseases on an outpatient basis. 5. Indications for planned and urgent hospitalisation of children in outpatient practice.	5
2	Participation in the conduct of outpatient appointments. 1. Assessment of physical and neuropsychological development of the child. 2. Assessment of the child's health status. 3. Preparation of a diet for a healthy child. 4. Participation in preventive measures and medical examination of children with diseases of various body systems. 5. Methods of hardening of young children and children who are often ill. 6. Participation in the childcare system. 7. Conducting sanitary and educational work. 8. Psychological and linguistic contact with healthy and sick children, building good relationships with the parents of a sick child. 9. Participation in providing emergency care to children at the pre-hospital stage. 10. Participation in vaccination of children in the clinic. 11. Participation in providing emergency care to children with post-vaccination complications.	12
	Разом	17

Individual tasks

Preparing and conducting conversations with sick children and their parents:
- The role of vitamin D for the body of a young child,
- The benefits of natural feeding,
- Hardening of a young child,
- Anaemia in children: what parents should know
- Diabetes mellitus in children,

- The problem of childhood obesity.

List of theoretical questions for the final test

1. Principles of organisation of medical care for children in outpatient settings.
2. Clinic, laboratory and instrumental diagnostics and tactics of treatment of major childhood diseases in outpatient settings.
3. Principles of organisation of vaccine prevention of infectious diseases in Ukraine.
4. The system of dispensary supervision of healthy and sick children.
5. Application of the principles of ethics and deontology in paediatrics.

List of practical skills in the discipline

1. Conduct a survey and physical examination of patients and analyse their results
2. plan examination schemes for a particular patient depending on the characteristics of the clinical course of the disease.
3. Analyse the results of basic laboratory and instrumental research methods.
4. Identify the leading pathological symptoms and syndromes in the most common diseases. diseases.
5. Conduct differential diagnostics and make a preliminary diagnosis of the most common diseases.
6. Interpret the general principles of treatment, rehabilitation and prevention of the most common diseases in children.
7. To master the methods of diagnosis and emergency care at the pre-hospital stage.
8. To master the necessary medical manipulations.
9. To get acquainted with the maintenance of medical records in the clinic.
10. To master the moral and deontological principles of a medical specialist and the principles of professional subordination.

6 Content of practical classes| Industrial medical practice in obstetrics.

Interdisciplinary links: Obstetrics and gynaecology as an academic discipline is based on the knowledge gained by higher education students in the study of: medical biology; human anatomy; physiology; pathophysiology; histology, cytology and embryology; microbiology, virology and immunology; pharmacology; internal medicine, including endocrinology, medical genetics; general surgery and is integrated with these disciplines.

The knowledge, skills and abilities acquired during the study of the discipline "Obstetrics and Gynaecology" can be used by higher education students after completion of this discipline during internships.

1. Objective:

The purpose of medical practice in obstetrics is:

acquisition of knowledge of physiological and pathological obstetrics, mastering the general principles of pregnancy, childbirth and the postpartum period, the ability to analyse the obstetric situation, use basic and additional research methods, demonstrate the skills and abilities outlined in the educational and professional training programme for specialists in the speciality 222

"Medicine".

The main tasks during the midwifery practice are

- studying the structure and principles of the maternity hospital, the main indicators of the obstetric hospital;
- conducting an objective examination of a pregnant woman, woman in labour, and new mother;
- assessing the severity of pathological conditions during pregnancy, childbirth and the postpartum period;
- providing first aid in obstetric pathology.
- Performing medical manipulations and procedures

№ п/п	Topic title	Hours
Module 4: Industrial medical practice in obstetrics. (acting doctor of the maternity ward)		

Content module1. Principles of organisation of medical care for pregnant women, women in labour and new mothers in Ukraine. The main responsibilities and professional actions of a maternity ward doctor.		
1.	The structure of the department and organisational arrangements for the work of the maternity doctor.	3
2.	Diagnosis of early and late pregnancy. Methods of examination of a pregnant woman. Definition of a standard examination of pregnant women, labouring women and women in labour.	4
3	Management of physiological labour (determination of the onset of labour, clinical course of labour, management of labour) and the postpartum period (clinic and management).	3
Content module 2. Clinical, laboratory and instrumental diagnostics and tactics of treatment of complications of pregnancy, childbirth, postpartum period in obstetric hospital.		
4.	Features of obstetric care in childbirth and the postpartum period (multiple pregnancy, fetal distress, abnormal uterine contractility).	4
5.	Provision of emergency medical care in obstetrics (obstetric bleeding, pre-eclampsia, eclampsia, maternal and fetal trauma).	4

INDEPENDENT WORK

Модуль 4. Виробничої лікарської практики з акушерства		
1.	Preparation for practical training	6
2.	Work in the department of pathology of pregnant women and in the maternity ward to learn and practice practical skills	6
3.	Preparation for the final control	4
In total from module 4		**16**

List of theoretical questions to prepare for the final control
Module 4: Industrial medical practice in obstetrics (acting doctor of the maternity ward)
-Physiology of pregnancy, methods of examination of pregnant women; the course of physiological and pathological pregnancy, childbirth and the postpartum period;
- modern standards of care in case of emergency obstetric pathology;
- the course of pregnancy, childbirth and the postpartum period in women with extragenital pathology;
- surgical interventions in obstetrics;
- postpartum septic diseases;
- principles of pregnancy and childbirth management in women with HIV;
- know modern methods of contraception in the postpartum period;
- anatomical and physiological features of the newborn period, the concept of breastfeeding. The benefits of cohabitation between mother and child.
List of practical skills to be acquired by the higher education student when studying the module.
Module 4: Industrial medical practice in obstetrics (acting doctor of the maternity ward)
1. History taking in pregnant women, women in labour and women in childbirth.
2. External obstetric examination of pregnant women, measuring the size of the pelvis, determining the true conjugate.
3. Establishment of gestational age (according to the anamnesis and objective examination), determination of the expected date of delivery.
4. Determination of the gestational age of the fetus and its weight.
5. Features of physiological labour.
6. Features of obstetric care in childbirth and the postpartum period.
7. Determination of the condition of the newborn on the Apgar scale. Assessment of the fetal condition.
8. Primary toilet of the newborn.
9. Registration of medical records in obstetrics.
10. Internal obstetric examination in full-term, postponed pregnancy and premature birth.
11. Drawing up a scheme of medical correction of abnormalities of labour activity.
12. Evaluation of the results of amnioscopy, amniocentesis, interpretation of CTG, ultrasound.
13. Assistance in obstetric emergencies: eclampsia, obstetric haemorrhage, postpartum septic complications.

7 Content of practical sessions| Functional diagnostics workshop

Aims of the section: Acquisition of theoretical knowledge and development of skills and practical abilities to determine the diagnostic capabilities of functional examination methods in internal medicine, indications and contraindications, methods of conducting, algorithms for interpreting the results obtained with further interpretation of the nature and severity of organ dysfunction in patients at different stages of the disease, formation of an understanding of the relationship between the identified instrumental changes and the pathogenesis and clinical manifestations of the disease.

Topic title	Practice	Ind.
Topic 1: Methods of functional diagnostics in pulmonology Structure and functions of the respiratory system. Basic methods of functional diagnostics of respiratory system diseases, interpretation of their results (spirography; pneumotachometry; puff flowmetry; forced expiratory flow-volume curve. Indications and contraindications for the test, methodology, interpretation of results.	**4**	**3**
Topic 2: Bronchospasmodic and provocative tests: indications and contraindications for conducting; methodology; interpretation of results. The concept of body plethysmography: indications and contraindications for conducting, methodology, interpretation of results. Assessment of bronchial resistance and exhaled air gas analysis: indications and contraindications for and contraindications for conducting, methodology, interpretation of results.	**5**	**3**
Topic 3: Methods of functional diagnostics in gastroenterology Structure and functions of the digestive system. Basic methods of functional diagnostics of digestive system diseases, interpretation of results (pH metry, breathing tests, video capsule endoscopy, electrogastroenterography, endoradiography). Indications and contraindications for the examination, procedure, interpretation of results.	**4**	**3**
Topic 4: Gastrocardiac monitoring, gastrointestinal manometry. Oral glucose tolerance test, iron absorption test: indications and contraindications for conducting, methodology, interpretation of results.	**4**	**3**
Topic 5: Electrophysiological methods of examination: electrocardiographic method of examination. Normal ECG. Basic properties of the heart (automaticity; conduction; excitability, contractility and refractoriness). Electrocardiographic leads (standard; enhanced; chest). Methods of ECG recording. Electrophysiological basis of ECG. ECG characteristics in the norm (teeth, intervals, segments). Determination of the electrical axis of the heart. Analysis of the electrocardiogram.	**4**	**3**
Topic 6: ECG in hypertrophy of different parts of the heart. Signs of left and right atrial hypertrophy. Signs of left and right ventricular hypertrophy, combined ventricular hypertrophy. Ventricular overload. ECG changes in pulmonary embolism and acute pulmonary heart, chronic pulmonary heart, acquired heart disease, hypertension, cardiomyopathy.	**5**	**4**
Topic 7: ECG in cardiac arrhythmias ECG in cardiac arrhythmias: impaired automaticity of the SA node, ectopic (heterotopic) rhythms due to the predominance of automaticity of ectopic centres, ectopic (heterotopic) cycles and rhythms mainly associated with impaired automaticity (extrasystole, paroxysmal tachycardia, atrial flutter, atrial fibrillation, ventricular flutter and fibrillation).	**4**	**4**

Topic 8: ECG in case of cardiac conduction disorders .ECG in case of cardiac conduction disorders (sinoatrial block; intra-atrial block; atrioventricular blocks of I-III supraventricular; Morgan-Adams-Stokes syndrome; Frederick's cider; blockades of the legs and branches of the bundle of His; premature ventricular excitation syndromes). ECG with an implanted pacemaker: ECG schedule depending on the type of implanted device.	**5**	**5**
Topic 9: ECG in myocardial infarction .Electrophysiological equivalents of ischaemia, damage and necrosis of the heart muscle on the ECG. ECG in myocardial infarction with Q wave. ECG in myocardial infarction without Q wave. ECG diagnostics of myocardial infarction localisation. ECG diagnostics of myocardial infarction stage. ECG diagnosis of complications of myocardial infarction.	**4**	**4**
Topic 10 : Electrophysiological methods of examination: electromyography, electroencephalography. Neurophysiological bases of electromyography, mechanism of electromyogram formation, main indications and contraindications for examination, normal and pathological characteristics of EMG when conducted with surface electrodes, electromyographic data in the main types of neuromuscular lesions (muscle fibre damage, neuromuscular transmission disorders, peripheral nerve trunks damage). Neurophysiological bases of electroencephalography, main indications and contraindications for examination, normal EEG of a healthy adult, pathological types of adult activity, EEG changes in the wake-sleep cycle, EEG features in major diseases of the central nervous system (epilepsy, tumours and inflammatory brain diseases, vascular diseases, traumatic brain injury).	**5**	**5**
Topic 11: Daily blood pressure monitoring (DBPM) Methods of conducting the study, main indications and contraindications for the examination, interpretation of the results. Advantages and disadvantages of oscillometric and auscultatory methods of blood pressure measurement. The role of ABPM in the diagnosis of arterial hypertension. Analysis of SBP results: Mean values of SBP, DBP, mean arterial pressure; Maximum and minimum values of blood pressure in different periods of the day; Hypertension time index (HTI); Hypertension area index; Variability of blood pressure; Degree of nighttime blood pressure decrease (circadian blood pressure profile); Degree and rate of morning blood pressure increase; Arterial stiffness index; Circadian heart rate index.	**4**	**4**
Topic 12: Holter ECG monitoring: the methodology of the study, the main indications and contraindications for the examination, the main stages of analysis of Holter monitoring records, normal Holter monitoring indicators, interpretation of the results of Holter ECG monitoring.	**5**	**5**
Topic 13: Echocardiography (Echocardiography). Transthoracic echocardiography: standard positions, anatomical norms in echocardiography, indicators of systolic and diastolic function of the LV. Tissue dopplerography. Transesophageal echocardiography, stress echocardiography. Fundamentals of methods, diagnostic value, indications and contraindications for performance, interpretation of results.	**4**	**4**
Topic 14: Echocardiography in the diagnosis of heart disease: coronary heart disease, arterial hypertension, myocarditis, pericarditis, congenital and acquired heart valve disease, aortic disease. Visualisation capabilities, data analysis.	**4**	**5**
Topic 15: Densitometry: physiological basis of the method, examination technique, main indications and contraindications for examination, interpretation of results.	**4**	**4**
Topic 16: Polysomnography: basics of the method, examination technique, main indications and contraindications for the examination, use of polysomnographic examination for the diagnosis of obstructive sleep apnoea syndrome (OSA) in adults.	**4**	**5**
Topic 17: Thermography: physical basis of the method, physiological basis of thermoregulation, examination methodology, main indications and contraindications for examination, characteristics of human body thermograms, interpretation of the results in diseases of internal organs of internal organs.	**4**	**4**

Topic 18: Practice-oriented differentiated credit	**4**	**5**
Total hours:	**77**	**73**

THEMATIC PLAN OF PRACTICAL CLASSES

Topic 1: Methods of functional diagnostics in pulmonology
"Methods of functional diagnostics in pulmonology" Structure and functions of the respiratory system. Basic methods of functional diagnostics of respiratory system diseases, interpretation of their results (spirography; pneumotachometry; puff flowmetry; forced expiratory flow-volume curve. Indications and contraindications for the test, methodology, and interpretation of the results. The study of this topic involves working in a functional diagnostics room, analysing spirographs and discussing them.
Topic 2. Bronchospasmolytic and provocative tests in pulmonology
"Bronchospasmolytic and provocative tests in pulmonology". Indications and contraindications for conducting; methodology; interpretation of results. The concept of body plethysmography: indications and contraindications for conducting, methodology, interpretation of results. Assessment of bronchial resistance and exhaled air gas analysis: indications and contraindications for conducting, methodology, interpretation of results. The study of this topic involves working in a functional diagnostics room.
Topic 3. Methods of functional diagnostics in gastroenterology
"Methods of functional diagnostics in gastroenterology" Structure and functions of the digestive system. Basic methods of functional diagnostics of digestive system diseases, interpretation of results (pH-metry, breathing tests, video capsule endoscopy, electrogastroenterography, endoradiography). Indications and contraindications for conducting, methods of performance, interpretation of results. The study of this topic involves working in a functional diagnostics room.
Topic 4: "Gastrocardiac monitoring, gastrointestinal manometry. Oral glucose tolerance test, iron absorption test"
"Gastrocardiac monitoring, gastrointestinal manometry. Oral glucose tolerance test, iron absorption test". Indications and contraindications for conducting, methods of performance, interpretation of results. The study of this topic involves working in a functional diagnostics room.
Topic 5. Electrophysiological methods of examination: electrocardiographic method of examination. ECG is normal
"Electrophysiological methods of examination: electrocardiographic method of examination. ECG is normal". Basic properties of the heart (automaticity; conduction; excitability, contractility and refractoriness). Electrocardiographic leads (standard; enhanced; chest). Methods of ECG recording. Electrophysiological basis of ECG. ECG characteristics in the norm (teeth, intervals, segments). Determination of the electrical axis of the heart. Analysis of the electrocardiogram. The study of this topic involves working in a functional diagnostics room.
Topic 6. ECG in hypertrophy of different parts of the heart
"ECG in case of hypertrophy of different parts of the heart". Signs of left and right atrial hypertrophy. Signs of left and right ventricular hypertrophy, combined ventricular hypertrophy. Ventricular overload. ECG changes in pulmonary embolism and acute pulmonary heart disease, chronic pulmonary heart disease, acquired heart disease, hypertension, cardiomyopathy. The study of this topic involves working in a functional diagnostics room.
Topic 7. ECG in case of cardiac arrhythmia

"ECG in case of heart rhythm disturbance"

ECG in heart rhythm disorders: violation of the automaticity of the SA node, ectopic

(heterotopic) rhythms due to the predominance of ectopic centres, ectopic (heterotopic) cycles and rhythms mainly associated with a violation of automaticity (extrasystole, paroxysmal tachycardia, atrial flutter, atrial fibrillation, ventricular flutter and fibrillation). The study of this topic involves working in a functional diagnostics room.

Topic 8: ECG in case of cardiac conduction disorders

"ECG in case of cardiac conduction disorders"

ECG in case of cardiac conduction disorders (sinoatrial block; intra-atrial block; atrioventricular blocks of I-III supraventricular; Morgania-Adams-Stokes syndrome; Frederick's syndrome; blocks of the legs and branches of the bundle of His; premature ventricular excitation syndromes). ECG with an implanted pacemaker: ECG schedule depending on the type of implanted device.

The study of this topic involves working in a functional diagnostics room.

Topic 9. ECG in myocardial infarction

"ECG in myocardial infarction"

Electrophysiological equivalents of ischaemia, damage and necrosis of the heart muscle on the ECG. ECG in myocardial infarction with Q wave. ECG in myocardial infarction without Q wave. ECG diagnostics of myocardial infarction localisation. ECG diagnostics of myocardial infarction stage. ECG diagnosis of complications of myocardial infarction. The study of this topic involves working in a functional diagnostics room.

Topic 10. Other electrophysiological examination methods: electromyography, electroencephalography

"Other Electrophysiological Methods of Examination: Electromyography, electroencephalography"

Electromyography: neurophysiological basis of the method, mechanism of electromyogram formation, main indications and contraindications for examination, normal and pathological characteristics of EMG when conducted with surface electrodes, electromyographic data in the main types of neuromuscular lesions (muscle fibre lesions, neuromuscular transmission disorders, peripheral nerve trunks lesions). Electroencephalography: neurophysiological basis of the method, main indications and contraindications for the examination, normal EEG of a healthy adult, pathological types of adult activity, EEG changes in the wake-sleep cycle, EEG features in major diseases of the central nervous system (epilepsy, tumours and inflammatory brain diseases, vascular diseases, traumatic brain injury).

Studying this topic involves working in the functional diagnostics room, electromyography room, electroencephalography room

Topic 11. Daily blood pressure monitoring (DBP)

"Daily blood pressure monitoring (DBPM)"

Methodology of the study, main indications and contraindications for the examination, interpretation of the results. Advantages and disadvantages of oscillometric and auscultatory methods of blood pressure measurement. The role of ABPM in the diagnosis of arterial hypertension. Analysis of SBP results: Average values of SBP, DBP, mean arterial pressure; Maximum and minimum values of blood pressure at different periods of the day; Hypertension time index (HTI); Area index of hypertension; Variability of blood pressure; Degree of nighttime blood pressure decrease (circadian blood pressure profile); Degree and rate of morning blood pressure increase; Arterial stiffness index; Circadian heart rate index. The study of this topic involves working in a functional diagnostics room, collecting ABPM results.

Topic 12: Holter ECG monitoring

"Holter monitoring of ECG". Methodology of the study, main indications and contraindications for the examination, main stages of Holter monitoring records analysis, normal Holter monitoring indicators, interpretation of the obtained results of ECG Holter monitoring.

The study of this topic involves working in a functional diagnostics room. Selection of results of 24-hour ECG recording, their interpretation and discussion

Тема 13. Метод Ехокардіографії (ЕхоКГ)

Echocardiography (Echocardiography). Transthoracic echocardiography: standard positions, anatomical norms in echocardiography, indicators of systolic and diastolic function of the LV. Tissue dopplerography. Transesophageal echocardiography, stress echocardiography. Fundamentals of methods, diagnostic value, indications and contraindications for performance, interpretation of results. The study of this topic involves working in a functional diagnostics room. Master the skills of performing and reading the results of examinations.
Topic 14 Echocardiography in the diagnosis of heart disease
"Echocardiography in the diagnosis of heart diseases": coronary heart disease, arterial hypertension, myocarditis, pericarditis, congenital and acquired heart valve defects, aortic diseases. Visualisation capabilities, data analysis. The study of this topic involves working in a functional diagnostics room. Master the skills of performing and reading the results of examinations.
Topic 15. The method of densitometry.
"Densitometry method". The physiological basis of the method, the methodology of the study, the main indications and contraindications for the examination, interpretation of results. The study of this topic involves working in a functional diagnostics room. Master the skills of performing and reading examination results.
Topic 16. The method of polysonography.
"Polysomnography method". The basics of the method, the methodology of the study, the main indications and contraindications for the examination, the use of polysomnographic examination for the diagnosis of obstructive sleep apnoea syndrome (OSA) in adults. The study of this topic involves working in a functional diagnostics room. Master the skills of performing and reading the results of examinations.
Topic 17. The method of thermography.
"Method of thermography". Physical basis of the method, physiological basis of thermoregulation, examination methodology, main indications and contraindications for examination, characteristics of human body thermograms, interpretation of the results in case of diseases of internal organs. The study of this topic involves working in a functional diagnostics room. Master the skills of performing and reading the results of examinations.
Topic 18: Practice-oriented differentiated assessment

INDEPENDENT WORK

Types of independent work	Number of hours	Types of control
Preparing for practical training	40	Current control, offsetting
Individual work: performing and interpreting the results of instrumental research in accordance with the topics of the workshop	29	Offset
Preparation for the final control	4	Differential credit
Total	**73**	

8 Training and control methods

1. According to the sources of knowledge, teaching methods are used: verbal - narration, explanation, lecture, instruction; visual - demonstration, illustration; practical - practical work, problem solving. According to the nature of the logic of cognition, the following methods are used: analytical, synthetic, analytical-synthetic, inductive, deductive. According to the level of independent mental activity, the following methods are used: problematic, search, research.
2. Verbal methods: conversation;
3. Visual methods: illustration, demonstration, demonstration at the patient's bedside;
4. Practical methods: practical work and solving situational tasks for the development of skills; simulation training.
5. Independent work of students on comprehension and assimilation of new material
6. Use of control and educational computer programmes

7.Innovative teaching methods: : Case-based learning (learning through the analysis of a clinical case, situation); brainstorming; educational discussion; educational debate; role play; team-based learning (Team-based learning; think-pair-share.
The types of classes according to the curriculum are: practical classes; independent work of students.
Control methods
Current control is based on the control of theoretical knowledge, practical skills and abilities.
The forms of current control are: oral questioning (frontal, individual, combined), interview; practical testing of the formed professional skills (conducted on the basis of the results of solving clinical cases, working with medical documentation, performing practical skills, working at the patient's bedside); test control ("open" and "closed" test tasks).
Current control is mandatory. When assessing the mastery of each topic in all disciplines of the curriculum, the student is given grades on a 4-point (traditional) scale for current learning activities, taking into account the approved assessment criteria for the discipline. All types of work provided by the curriculum are taken into account. The student must receive a grade for each topic. The teacher conducts a survey of each student in the group at each lesson and gives a grade in the student's attendance and progress record on a traditional scale ("5", "4", "3", "2").
When assessing a student's current learning activities, 20% of the grade is based on the student's independent work, which takes into account the knowledge of the topic of the independent lesson and the work in the notebook.
The final (summative) control is carried out
- in the form of a written test, which includes test tasks, theoretical questions
- control of practical skills (solving clinical cases, defence of medical history, assessment of the correctness of practical skills - a practice-oriented exam.
In accordance with the specifics of professional training, preference is given to test and practice-oriented control.
Form of final control of learning progress.

8 Training and control methods

The final control of the discipline is based on the control of theoretical knowledge, practical skills and abilities.
A differential test is a form of final control of the student's mastery of theoretical and practical material in the discipline.
The scheme of calculation and distribution of points received by students.
The maximum number of points for a discipline is 200 points. The ratio between the results of the assessment of current learning activities and the final control of knowledge is 60% and 40%.
The study of the discipline ends with the final control in the form of a differential test.
Only those students who do not have academic debt (all missed classes have been completed) and whose average grade for the current academic activity in the discipline is at least "3" are allowed to take the differential test.
The maximum number of points that a student can gain for current academic activities to be admitted to the exam is 120 points and is determined as the sum of the arithmetic mean of all grades obtained in the semester.
The minimum number of points that a student must score for current academic activities to be admitted to the exam is 72 points. Recalculation of the average grade for current academic performance (on a 120-point scale) in Table 1.

Table 1.
Recalculation of the average grade for the current academic performance into a multi-point scale for subjects that end with an exam

4-point	120-point	4-point	120-point	4-point	120-point
5	120	4.29	103	3.58	86
4.96	119	4.25	102	3.54	85

4.92	118	4.21	101	3.50	84
4.87	117	4.17	100	3.46	83
4.83	116	4.12	99	3.42	82
4.79	115	4.08	98	3.37	81
4.75	114	4.04	97	3.33	80
4.71	113	4.00	96	3.29	79
4.67	112	3.96	95	3.25	78
4.62	111	3.92	94	3.21	77
4.58	110	3.87	93	3.17	76
4.54	109	3.83	92	3.12	75
4.50	108	3.79	91	3.08	74
4.46	107	3.75	90	3.04	73
4.42	106	3.71	89	3	72
4.37	105	3.67	88	**less 3**	**Not enough**
4.33	104	3.62	87		

4-бальна шкала	**200-бальна шкала**	**4-бальна шкала**	**200-бальна шкала**	**4-бальна шкала**	**200-бальна шкала**
5	120	4.29	103	3.58	86
4.96	119	4.25	102	3.54	85
4.92	118	4.21	101	3.50	84
4.87	117	4.17	100	3.46	83
4.83	116	4.12	99	3.42	82
4.79	115	4.08	98	3.37	81
4.75	114	4.04	97	3.33	80
4.71	113	4.00	96	3.29	79
4.67	112	3.96	95	3.25	78
4.62	111	3.92	94	3.21	77
4.58	110	3.87	93	3.17	76
4.54	109	3.83	92	3.12	75
4.50	108	3.79	91	3.08	74
4.46	107	3.75	90	3.04	73

Максимальна кількість балів, яку може набрати студент при складанні екзамену становить 80 (мінімальна кількість - не менше 50).

Оцінка з дисципліни визначається комплексно, як сума балів за поточну навчальну діяльність та балів за екзамен.

Із виділених 120 балів за поточну навчальну діяльність на оцінювання індивідуальної самостійної роботи здобувачів вищої освіти, згідно з робочою навчальною програмою, виділяється додатково від 4 до 12 балів. Заохочувальні бали додаються до підсумкової оцінки з дисципліни в кінці її вивчення.

Бали з дисципліни для студентів, які успішно виконали програму конвертуються у національну шкалу та систему ЄКТС (табл. 2).

Сума балів за всі види навчальної діяльності	Оцінка ЄКТС	Оцінка за національною шкалою	
		для екзамену, дифзаліку	для заліку
180-200	A	відмінно	зараховано
160-179	B	добре	
150-159	C		
130-149	D	задовільно	

120-129	E		
50-119	FX	незадовільно з можливістю перескладання	не зараховано з можливістю перескладання
0-49	F	незадовільно з обов'язковим повторним вивченням дисципліни	не зараховано з обов'язковим повторним вивченням дисципліни

Методичне забезпечення
1. Методичні розробки лекцій.
2. Методичні вказівки для самостійної роботи здобувачів вищої освіти під час підготовки до практичного заняття та на занятті.
3. Методичні вказівки для самостійної роботи здобувачів вищої освіти для вивченням тем, винесених на самостійне опрацювання.
4. Методичні рекомендації з організації проведення виробничої практики.
5. Список рекомендованої літератури. 6.Мультімедійни презентації.
7. Матеріали для контролю знань, умінь і навичок здобувачів вищої освітиів:
- тести різних рівнів складності;
- тести з банку ліцензійних іспитів «Крок - 2»;
- ситуаційні задачі;
- комп'ютерні контролювальні програми.
8. Відеофільми. 9.Клінічні аналізи.

9 Рекомендована література

Basic literature:
1 .Perederiy V.G. Fundamentals of internal medicine: textbook. Vol. 2. Diseases of the circulatory system. Rheumatic diseases. Diseases of the kidneys.
General issues of internal medicine / V.G. Perederiy, S.M. Tkach: Nova Knyha, 2018. - 784 c.
2.Perederiy V.G. Fundamentals of internal medicine: textbook. T. 3. Differential diagnosis and management of patients in the clinic of internal medicine. Acute and emergency conditions in the clinic of internal medicine / V.G. Perederiy, S.M. Tkach. - Vinnytsia: Nova Knyha, 2018.
3 .Perederiy V.G., Tkach S.M. Fundamentals of internal medicine. Textbook. Volume 1: Diseases of the respiratory system, diseases of the digestive system, diseases of the blood system and hematopoietic organs, diseases of the endocrine system - Vinnytsia: Nova Knyha, 2009 - 640 p.
4 .Internal diseases: in 2 parts. Part 1. Chapters 1-8: textbook / L.V. Glushko, S.V. Fedorov, I.M. Skrypnyk and others - 2019. - Medytsyna Publishing House - 680 p.
5 Internal diseases: in 2 parts. Part 2. Chapters 9-24: textbook / L.V. Glushko, S.V. Fedorov, I.M. Skrypnyk and others - 2019. - Medytsyna Publishing House - 584 pp.

Supporting literature
6 Svintsitsky AS Diagnostic methods in the clinic of internal medicine: a textbook for interns and students of medical institutions of higher education / AS Svintsitsky. Kyiv : Medicine, 2019. - 1007 c.

Information resources:
7. https://empendium.com/ua/
8 Ukrainian portal of functional diagnostics. Access mode: https://fd.org.ua/

Official evidence-based practice-oriented medical information contained in the publications:
1. AMA (American Medical Association) https://www.ama-assn.org/
2. American Academy of Family Physicians http://www.aafp.org/home.html
3. American Academy of Pediatrics Policy (AAP Policy) Clinical Practice Guidelines https://www.aap.org
4. American College of Cardiology http://www.acc.org/
5. American College of Emergence Physicians https://www.acep.org/
6. American Heart Association http://news.heart.org/
7. BMJ Clinical Evidence http://clinicalevidence.bmj.com

8. Brain Trauma Foundation (BTF) https://www.braintrauma.org/http://www.trauma.org/
9. Eastern Association for the Surgery of Trauma https://www.east.org/
10. European Paediatric Association, the Union of National European Paediatric Societies and Associations (EPA/UNEPSA) http://www.epa-unepsa.org/
11. European Society of Cardiology http://www.escardio.org/
12. http://www.mozdocs.kiev.ua
13. Medscape from WebMD http://www.medscape.com
14. Medscape from WebMD http://www.medscape.com
15. National Comprehensive Cancer Network https://www.nccn.org/
16. National Guideline Clearinghouse https://www.guideline.gov/
17. National Institute for Health and Clinical Excellence (NICE) https://www.nice.org.uk/ 18. Royal College of Physicians https://www.rcplondon.ac.uk/
19. The Association of the Scientific Medical Societies in Germany http://www.awmf.org 20. The Cochrane Collaboration The Cochrane Library
21. The European Society for Emergency Medicine https://www.eusem.org/
22. The Finnish Medical Society Duodecim https://www.duodecim.fi/
23. The French National Authority for Health http://www.has-sante.fr/
24. The National Association of Emergency Medical Technicians (NAEMT) http://www.naemt.org/
25. The National Association of State EMS https://www.nasemso.org/
26. The National Health and Medical Research Council (NHMRC) https://www.nhmrc.gov.au
27. Up To Date http://www.uptodate.com Western Trauma Association https://westerntrauma.org/

9 Recommended reading

Basic:

1. Obstetrics and gynaecology: in 4 volumes: national textbook / by the team of authors; edited by Academician. A44 NAMS of Ukraine, prof. V.M. Zaporozhana.
2. Zaporozhan, V.K. Chaika, L.B. Markin et al. V.M. Zaporozhan - K.: VSV "Medicine", 2013. - 1032 p. + 4 c. 2.Obstetrics and gynaecology: in 2 books. Book 1. Obstetrics: textbook / V.I.
3. Hryshchenko, M.O. Shcherbyna, B.M. Ventskivsky et al. 4th edition, K. Medicine, 2020. -424 p.
4. Modern approaches to the management of labour and the postpartum period in the pathological course of pregnancy. Edited by Gromova AM, Nesterenko LA, Poltava, 2016.

Auxiliary :

5. Edited by V.M. Zaporozhana Obstetrics and gynaecology: in 4 volumes: Obstetrics: textbook. 2013, K.: Medicine, ukr.
6. Zaporozhan V.M. Obstetrics and gynaecology: textbook. In 2 parts, 2000, K.: Zdorovye, ukr.
7. Gromova AM et al. Obstetrics and gynaecology, textbook for dental faculty. 2002, П.:
8. Dyvosvit, in Ukrainian.
9. Topical issues of pathological obstetrics in test tasks: study guide.
10. manual for students of medical faculties of higher medical schools of III-IV years of study, doctors-interns / [I. V. Kalinovska, O. M. Yuzko, K. M. Lisova et al. - Chernivtsi: BSMU, 2019. - 109 p. : ill.
11. Neonatology / edited by V.M. Zaporozhan. - 2nd edition - K. : Medicine, 2018. 2- 928 c.

Basic:

1. Pediatrics: [textbook for students of higher medical educational institutions of IV level of accreditation] / edited by O.V.
2. Tyazhka; O.V. Tyazhka, N.G. Horovenko, S.O. Kramarev [et al: Nova Knyha, 2018. -1150 p.
3. Nelson's Fundamentals of Paediatrics: translation of the 8th English edition: in 2 volumes / Karen J. Markdante, Robert M. Kligman - Kyiv, VSV "Medicine", 2019. - Vol. 1 - 377 p. - Vol. 2 - 425 p.
4. Neonatology. In 3 volumes: textbook. Vol. 1/edited by T. K. Znamenska ; T. K. Znamenska, Y. G. Antipkin, M. L. Aryaev [et al. - Lviv: Publisher Marchenko T. V., 2020. - 407 c.

Supplementary:

5. Clinical examination of a child: a textbook for students of higher educational institutions / O.V. Katilov,
6. Dmitriev, K.Yu. Y. Makarov. - Vinnytsia: New book, 2017. - 518 c.
7. Algorithms for performing manipulations in neonatology. Study guide. Pohylko V.I., Tsvirenko S.M., Cherniavska Y.I. - LLC Publishing House "Mirgorod", 2019. 107 p.

Information resources:
Orders of the Ministry of Health http://www.moz.gov.ua/ua/portal/
Association of Neonatologists of Ukraine https://neonatology.org.ua/association/about Ukrainian Academy of Paediatric Specialties https://www.uaps.org.ua/
Ministry of Health of Ukraine https://moz.gov.ua/ World Health Organisation https://www.who.int/
American Academy of Paediatrics https://www.aap.org/en-us/Pages/Default.aspx

9 Recommended reading

Basic

1. Zhdan VM Outpatient surgery: a manual for general practitioners / VM Zhdan, MV Tkachenko, MI Kravtsiv ; Ministry of Health of Ukraine, UMSA - Poltava: ASMI, 2018. 204 p.
2. Surgery. In 2 volumes : textbook [for students of higher medical schools]. Vol. 1 / edited by P.G. Kondratenko, V.I. Rusin; S.O. Boyko, O.O. Baldizhar, P.O. Baldizhar [et al: New Book, 2019. 702 p.
3. Surgery. In 2 volumes: textbook [for students of higher medical schools]. Vol. 2 / edited by P.G. Kondratenko, V.I. Rusin; S.O. Boyko, O.O. Baldizhar, P.O. Baldizhar [et al: New Book, 2019. 702 p.

Auxiliary

4. General surgery: [a textbook for students of higher educational institutions of the Ministry of Health of Ukraine] / edited by Y. S. Bereznitsky, M. P. Zakharash, V. G. Mishalov [et al: Nova Knyha, 2018. 342 p.
5. Surgery: Textbook / S.V. Malik, V.P. Polevyi, M.V. Trofimov, V.D. Sheiko, et al; edited by S.V. Malik - PE "Nova Knyha." - Vinnytsia, 2020. - 440 p.
6. Surgery: a textbook in two volumes [for students enrolled in higher medical education institutions and postgraduate education institutions of the Ministry of Health of Ukraine in the specialities of "Medical care" and "Nursing"]. T. 2 : Special surgery / R.O. Sabadyshyn, V.O. Ryzhkovskyi, O.V. Markovych [et al: Nova Knyha, 2018. 588 p.

Information resources:
Coursera
Lectures by world-class professors and reinforced through interactive exercises.coursera.org CSurgeries
Library of surgical procedures created by surgeons for surgeons.csurgeries.com DNA Tube
Videos, animations, and slideshows from scientific studies, lectures, and seminars.dnatube.com EyeTube
High quality ophthalmic surgical videos and panel discussions.eyetube.net Free Medical Videos
Archive of popular and engaging medical videos from around the Internet.freemedicalvideos.com FutureLearn: Healthcare and Medicine
Offers a diverse selection of courses from leading European universities.futurelearn.com - Geeky Medics
Free videos, revision notes, OSCE guides, and MCQs for medical students.geekymedics.com
GrepMed
Community-sourced medical image and video repository.grepmed.com HealthTalk.org
Videos of patients sharing real life experiences with various health conditions.healthtalk.org Khan Academy
Academic videos and lectures on medicine and the healthcare system.khanacademy.org Mayo Clinic Videos
Surgical procedure videos and interviews with Mayo Clinic doctors, sorted by speciality.medprofvideos.mayoclinic.org
MedicalVideos.com
Library of medical videos covering everything from anaesthesia to vascular x-ray imaging.medicalvideos.com
Medscape Video
Expert interviews and perspectives as well as procedure videos.medscape.com MEDtube
Education platform offering thousands of videos for healthcare professionals.medtube.net MIT Open CourseWare
Lectures and course materials for students, teachers, and self-learners.ocw.mit.edu OnlineMedEd

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Lectures and course materials for students, teachers, and self-learners.ocw.mit.edu OnlineMedEd
70+ hours of whiteboard lessons covering 250+ topics across 19 specialties. onlinemeded.org PBS: Health Videos
Free videos from your favorite PBS programs, including NOVA and Frontline.pbs.org TED Health
Fascinating presentations by the world's leading thinkers and doers.ted.com The Doctor's Channel
Short and to-the-point video clips on the latest medical news, ideas, and information.thedoctorschannel.com VuMedi
Physician only site providing thousands of videos from leading institutions. vumedi.com WebSurg
European site created by surgeons for surgeons, in order to help with surgical training.websurg.com

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4. https://litfl.com/top-100/ecg/
5. http://learn.escardio.org/lp/eacvi_echo_elearningcourse/knowledge/078833a3-cafb-4506-b264-11e4e3d968f7/0/curriculumSubTopics
6. https://www.123sonography.com/ultrasound-courses https://www.asecho.org/rising-star-hub/echo-images/

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3. http://mtd.dec.gov.ua/images/dodatki/2014_455_GKS/2014_455%20YKPMD_GKS.pd f www.WebCardio.org
4. https://professional.heart.org/professional/GuidelinesStatements/UCM_316885_Guideli nes-Statements.jsp - AMERICAN HEART SSOCIATION PROFESSIONAL MEMBERSHIP
5. https://www.escardio.org - The European Society of Cardiology https://www.rheumatology.org - The American College of Rheumatology https://www.asn-online.org/ - The American Society of Nephrology

Базова:

1. Сімейна медицина. У 3-х кн.: [підручник для студентів вищих мед. навч. закладів IV рівня акредитації]. Кн. 2. Симптоми і синдроми у клініці внутрішніх хвороб / за ред. О. М. Гіріної, Л. М. Пасієшвілі; Л. С. Бабінець, О. М. Барна, С. В. Білецький та ін. - К.: Медицина, 2016. - 455с.
2. Організаційні аспекти системи первинної медико-санітарної допомоги в Україні: навчаль- ний посібник [для студентів мед. закладів вищої освіти МОЗ України] / Ю. М. Казаков Т. А. Трибрат, С. В. Шуть, Н. І. Чекаліна; МОЗ України, УМСА, Каф. пропедевтики внутр. медицини з доглядом за хворими, загальної практики (сімейної медицини). - Полтава: Техсервіс, 2018. - 117 с.

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3. Організація роботи дільничних терапевтів та сімейних лікарів і превентивної терапії. – Скляро Сімейна медицина. У 3-х кн. : [підручник для студентів вищих навч. закладів мед. ун-тів, ін-тів й акад.]. Кн. 3. Спеціальна частина. Поліпрофільність загальної лікарської практики / за ред. О. М. Гіріної, Л. М. Пасієшвілі ; Л. С. Бабінець, П. А. Бездітко, С. А. Бондар та ін. - К. : Медицина, 2017. - 679 с.
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5. Передерій В.Г. Основи внутрішньої медицини: [підручник для студентів вищ. мед. навч. закладів IV рівня акредитації]. Т. 2: Захворювання системи кровообігу. Ревматичні хвороби. Захво- рювання нирок. Загальні питання внутрішньої медицини / В.Г. Передерій, С. М. Ткач. - Вінниця: Нова книга, 2009. - 781 с.

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8. Zharinov O.Y. Fundamentals of electrocardiography (third edition, revised and supplemented) / O.Y. Zharinov, V.O. Kuts. - Lviv: MS, 2017. 240 p.
9. Katerenchuk I.P. Clinical assessment, diagnostic and prognostic significance of the results of laboratory tests: Study guide. Rheumatology - Medkniga, 2018. 176 p.
10. Clinical interpretation and diagnostic value of laboratory parameters in general medical practice: Study guide. - Medknyga, 2018. 224 pp.
11. Order of the Ministry of Health of Ukraine of 02.03.2016 No. 152 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care for Stable Coronary Heart Disease". Unified Clinical Protocol for Emergency, Primary, Secondary (Specialised) and Tertiary (Highly Specialised) Medical Care "Stable Coronary Heart Disease".
Order of the Ministry of Health of Ukraine of 02.07.2014 No. 455 "On Approval and Implementation of Medical and Technical Documents for Standardisation of Medical Care for Acute Coronary Syndrome with ST-Elevation" Unified Clinical Protocol for Emergency, Primary, Secondary (Specialised) and Tertiary (Highly Specialised) Medical Care and Medical Rehabilitation "Acute Coronary Syndrome with ST-Elevation".
12. Order of the Ministry of Health of Ukraine of 03.03.2016 No. 164 "On Approval and Implementation of Medical and Technical Documents for Standardisation of Medical Care for Acute Coronary Syndrome without ST Segment Elevation" Unified Clinical Protocol for Emergency, Primary, Secondary (Specialised) and Tertiary (Highly Specialised) Medical Care and Medical Rehabilitation "Acute Coronary Syndrome without ST Segment Elevation".
13. Order of the Ministry of Health of Ukraine of 11.02.2016 No. 89 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care for Patients with Stage V Chronic Kidney Disease Using Hemodialysis or Peritoneal Dialysis".
14. Order of the Ministry of Health of Ukraine of 11.04.2014 No. 263 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care in Rheumatoid Arthritis". Unified clinical protocol of primary, secondary (specialised), tertiary (highly specialised) medical care and medical rehabilitation "Rheumatoid arthritis".
15. Order of the Ministry of Health of Ukraine dated 11.05.2011 No. 280/44 "On Approval of the Standard and Unified Clinical Protocols for Medical Care in the Speciality of Nephrology".
16. Order of the Ministry of Health of Ukraine of 13.06.2016 No. 564 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care in the Prevention of Cardiovascular Diseases". Unified clinical protocol of primary, secondary (specialised) and tertiary (highly specialised) medical care "Prevention of cardiovascular diseases".
17. Order of the Ministry of Health of Ukraine of 15.06.2016 No. 597 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care in Atrial Fibrillation". Unified clinical protocol of primary, secondary (specialised) and tertiary (highly specialised) medical care "Atrial fibrillation".
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9 Recommended reading

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7. Order of the Ministry of Health of Ukraine of 24.05.2012 №384 "On Approval and Implementation of Medical and Technical Documents on Standardisation of Medical Care for Arterial Hypertension". Unified clinical protocol for primary, emergency and secondary (specialised) medical care "Arterial hypertension".

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