

**FEDERAL STATE BUDGETARY
EDUCATIONAL INSTITUTION OF HIGHER EDUCATION
“AMUR STATE MEDICAL ACADEMY”
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

AGREED

Vice-Rector for Academic Affairs,



N.V. Loskutova

April 17, 2025

Decision of the CCMC

April 17, 2025

Protocol No. 7

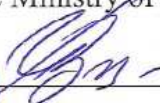
APPROVED

by decision of the Academic Council of the
FSBEI HE Amur SMA of the Ministry of Health
of the Russian Federation

April 22, 2025

Protocol No. 15

Acting Rector of the FSBEI HE Amur SMA of
the Ministry of Health of the Russian Federation



I.V. Zhukovets

April 22, 2025

EDUCATIONAL PROGRAM
industrial practice "Practice of surgical profile.
Assistant to the hospital physician"

Specialty: 31.05.01 General Medicine

Course: 4

Semester: 8

Total hours: 72 hours

Total credits: 2 credits

Form of control – credit, 8 semester

Blagoveshchensk, 2025

The educational program of the practice is designed in accordance with the requirements of the Federal State Educational Standard of Higher Education - specialist in specialty 31.05.01 General Medicine, approved by order of the Ministry of Education and Science of Russia dated 08/12/2020 No. 988 (registered with the Ministry of Justice of Russia on 08/26/2020 No. 59493), BPEP HE (2021).


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Protocol No. 7 dated March 21, 2025

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Conclusion of the Expert Commission for review of the Educational Programs:
Protocol No. 2 dated April 10, 2025

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APPROVED at the meeting of the CMC No. 4: Protocol No. 2 dated April 15, 2025

Chairman of the CMC No. 4

Holder of an Advanced Doctorate in Medical Sciences, Professor  I.V. Borozda

AGREED: Dean of the Faculty of Medicine,
Ph.D. of Medical Sciences, Associate Professor

 N.G. Brush

May 27, 2025

CONTENT

1	Explanatory note	4
1.1.	Characteristics of practice	4
1.2.	The purpose and objectives of the practice	5
1.3.	The place of practice in the structure of the main professional educational program of higher education	5
1.4.	Forms of practice control	5
1.5.	Practice Reporting Forms	5
1.6.	Requirements for students	5
1.7.	Interdisciplinary connections of practice with subsequent disciplines/practices	9
1.8.	Requirements for the results of the internship	10
1.9.	Stages of competence development and description of assessment scales	15
2.	Structure and content of practice	15
2.1.	Volume of practice	15
2.2.	Type of practice	15
2.3.	Criteria for assessing students' knowledge	16
3.	Educational, methodological, logistical and informational support for practice	17
3.1.	Main literature	17
3.2.	Further reading	17
3.3.	Educational and methodological materials prepared by the department staff	18
3.4.	Material and technical base for conducting internships	19
3.5.	Professional databases, information and reference systems, electronic educational resources	20
3.6.	Licensed and freely distributed software used in the educational process	22
3.7.	Resources of the information and telecommunications network "Internet"	23
4.	Evaluation Fund	23
4.1.	Test tasks for intermediate knowledge control	23
4.2.	List of practical skills that a student should have after completing an internship	24
4.3.	List of questions for the test	25
5.	Protocol of coordination with other disciplines/practitioners of the specialty	27
6.	Familiarization sheet	28
7.	Change and addition registration sheet	29

1. Explanatory note

1.1. Characteristics of practice

Industrial practice "Practice of a surgical profile. Assistant of a hospital physician" is a part of the main professional educational program of higher education - the specialist program in the specialty 31.05.01 General Medicine and is carried out in order to obtain professional skills and experience of professional activity: verification and consolidation of knowledge obtained in the study of the main clinical and theoretical disciplines, further deepening and improvement of practical skills acquired during training, familiarization with the organization of diagnostic, therapeutic, anti-epidemic and sanitary-educational work in regional, city, district medical organizations, the formation of universal, general professional and professional competencies.

Industrial practice of fourth- year students is conducted in accordance with the Curriculum after the end of the spring examination session of the VIII semester in surgical departments of multidisciplinary regional, city hospitals and central district hospitals with a well-organized system of providing qualified medical care. Students learn the methods of examining patients and consolidate the acquired practical skills, knowledge of pharmacodynamics and pharmacokinetics of essential drugs, make daily rounds, participate in operations, fill out diaries, discharge summaries.

A graduate who has mastered the specialist program is ready to solve the following professional tasks in accordance with the type(s) of professional activity that the specialist program is focused on:

The area of professional activity and spheres of professional activity in which graduates who have mastered the specialist program can carry out professional activities: healthcare (in the field of providing primary health care to the population in medical organizations: clinics, outpatient clinics, inpatient and outpatient institutions of the municipal health care system and medical and preventive institutions providing primary health care to the population);

Types of professional activity for which graduates of specialist programs are prepared: medical; scientific research; organizational and managerial.

A graduate who has mastered the specialist program is ready to solve the following professional tasks in accordance with the type(s) of professional activity that the specialist program is focused on:

medical activities: prevention of the occurrence of diseases among the population by carrying out preventive and anti-epidemic measures; participation in the provision of emergency medical care in conditions requiring urgent medical intervention; the formation of motivation in the population, patients and their family members aimed at maintaining and strengthening their health and the health of others; teaching patients basic hygienic measures of a health-improving nature that help prevent the occurrence of diseases and strengthen health;

research activities: analysis of scientific literature and official statistical reviews, participation in statistical analysis and public presentation of the results obtained;

organizational and managerial activities: creation of favorable conditions in medical organizations for the stay of patients and the work of medical personnel; maintenance of medical records in medical organizations; compliance with basic information security requirements;

The objects of professional activity of graduates of the specialist program are:

- individuals (patients) aged 15 to 18 years and over 18 years (hereinafter referred to as adolescents and adults);

- population;

- a set of tools and technologies aimed at creating conditions for protecting the health of citizens.

1.2. Purpose and objectives of the practice.

The purpose of the internship: to acquire professional skills and experience in professional activities, to test and consolidate the knowledge gained in the study of surgery, to further deepen and improve the practical skills acquired during training, to become familiar with the organization of diagnostic,

therapeutic, anti-epidemic and sanitary-educational work in regional, city, district hospitals, to develop universal, general professional and professional competencies.

Objectives of the practice:

- 1) to consolidate the acquired knowledge about the etiology, pathogenesis, classification, clinical manifestations, complications, diagnostics, treatment of the main acute surgical diseases and prevention of postoperative complications, provision of emergency care in urgent conditions within the studied nosological forms and teach how to use them in the practical activities of a doctor in a surgical hospital;
- 2) to develop students' skills in examining a surgical patient;
- 3) to develop independent clinical thinking (the ability to establish and justify a clinical diagnosis based on the collected information about the patient, prescribe an examination, treatment, conduct a differential diagnosis, and provide assistance in urgent conditions);
- 4) participate in events to develop positive behavior among the population aimed at maintaining and improving health, and motivation to introduce elements of a healthy lifestyle and eliminate bad habits;
- 5) learn to communicate and interact with society, the team, family, partners, patients and their relatives, taking into account ethics and deontology depending on the identified pathology and characterological features;
- 6) familiarize yourself with preventive and anti-epidemic measures aimed at preventing the occurrence of non-infectious, infectious, parasitic and occupational diseases;
- 7) acquire skills in health education work among the population and medical personnel in order to develop a healthy lifestyle;
- 8) improve skills in preparing medical documentation, working with educational scientific, reference, medical, scientific literature and official statistical reviews, including on the Internet.

1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education - specialist in specialty 31.05.01 General Medicine (2020) Industrial practice of 4th year students "Practice of a surgical profile. Assistant to a hospital physician" refers to the basic part, Block 2. The total workload is 2 credits (72 hours), it is held in the 8th semester in the 4th year. The form of control is a test with a grade in the 8th semester.

1.4. Forms of practice control. Intermediate control is used to control the progress of practice, including testing, control of theoretical knowledge, control of mastering practical skills, and assessment of practice reporting forms.

1.5. Practice reporting forms. Industrial practice diary, practice calendar schedule.

1.6. Requirements for students.

To master the practice, knowledge, skills and abilities formed by previous disciplines/practices are necessary:
Latin
Knowledge: Basic medical and pharmaceutical terminology in Latin.
Skills : be able to apply knowledge for communication and obtaining information from medical literature, medical documentation.
Skills: apply knowledge of basic medical and pharmaceutical terminology in professional activities.
Bioethics
Knowledge: moral and ethical standards, rules and principles of professional medical conduct,

the rights of the patient and the doctor, the main ethical documents regulating the activities of the doctor.
Skills : be able to build and maintain working relationships with patients and other team members.
Skills: apply acquired knowledge of moral and ethical standards, rules and principles of professional medical conduct, the rights of the patient and the doctor, the main ethical documents regulating the activities of the doctor, in professional activities.
History of Medicine
Knowledge: outstanding figures in medicine and health care, Nobel laureates, outstanding medical discoveries in the field of surgery, the influence of humanistic ideas on medicine.
Skills : be able to competently and independently present and analyze the contribution of domestic scientists to the development of surgery.
Skills: apply acquired knowledge about outstanding medical discoveries in the field of surgery in professional activities.
Microbiology, virology
Knowledge: the impact of microbes, viruses, fungi on the body. Microbiological diagnostics of infectious diseases
Skills : be able to analyze the results of microbiological diagnostics of infectious diseases
Skills: apply acquired knowledge about the impact of microbes, viruses, fungi on the body, knowledge of microbiological diagnostics of infectious diseases in professional activities.
Biochemistry
Knowledge: blood composition, biochemical blood constants, hormones, buffer systems, hemoglobin oxygenation factors, erythrocyte metabolism.
Skills : be able to analyze the contribution of biochemical processes to the functioning of organs and the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems, interpret the results of the most common laboratory diagnostic methods, and the biochemistry of human hormones
Skills: apply acquired knowledge of biochemical indicators of the functioning of organs and systems, as well as knowledge of laboratory diagnostics of biochemical indicators in professional activities.
Anatomy
Knowledge : normal anatomy of the respiratory, cardiovascular, digestive, hematopoietic systems, and pelvic organs.
Skills: be able to analyze age- and sex-related features of the structure of organs and systems .
Skills: apply knowledge of the normal anatomy of the respiratory, cardiovascular, digestive, hematopoietic systems, and pelvic organs in professional activities.
Topographic anatomy and operative surgery
Knowledge: structure, topography of cells, tissues, organs and systems of the body in interaction with their function in norm and pathology; topographic anatomy of the organs of the chest, abdominal cavity, small pelvis, retroperitoneal space and cellular spaces .
Skills : be able to analyze the topographic-anatomical interaction of the organs of the chest, abdominal cavity, pelvis, retroperitoneal space , cellular spaces with each other, as well as with other organs and systems, in norm and pathology.
Skills: Separation of different types of tissue (skin, subcutaneous fat, muscle). Application of different types of sutures to different types of tissue.
Normal Physiology
Knowledge: reflex arc, conditioned and unconditioned reflexes, physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in the norm; neuroendocrine regulation
Skills : be able to analyze the importance of regulation of biological processes in the human body on the functioning of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems.

Skills: apply knowledge of the normal physiology of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems in professional activities.
Pathophysiology, clinical pathophysiology
Knowledge: morphofunctional changes in body tissues in pathologies of the cardiovascular, respiratory, digestive, urinary and blood systems; pathogenesis of the inflammatory process .
Skills : be able to determine the contribution of pathophysiological processes to the development of complications of surgical diseases .
Skills: apply knowledge about morphofunctional changes in body tissues during pathology, as well as the pathogenesis of the inflammatory process in professional activities.
Pathological anatomy, clinical pathological anatomy
Knowledge: pathomorphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive, urinary and blood systems, and purulent-inflammatory processes .
Skills : be able to determine the contribution of pathomorphological processes to the development of complications of surgical diseases .
Skills: apply knowledge about morphological changes in body tissues during pathology, as well as the pathogenesis of the inflammatory process in professional activities.
Pharmacology
Knowledge: mechanism of action and side effects of various drugs on the body .
Skills : be able to write prescriptions for prescribed drugs, know the indications and contraindications for their use .
Skills: apply knowledge about the mechanism of action and side effects of various drugs on the body in professional activities.
Propaedeutics of internal diseases
Knowledge: collection of complaints, anamnesis, objective methods of examination of patients (palpation, percussion, auscultation) .
Skills : be able to conduct anamnestic and physical examination, identify the main syndromes and symptoms of diseases of internal organs .
Skills: apply knowledge of anamnestic and physical examination in professional activities.
General surgery
Knowledge: basic principles of general surgery, rules of asepsis and antisepsis.
Skills : be able to conduct anamnestic and physical examination in surgical pathology, and treat hands, instruments, and the surgical field.
Skills: Apply knowledge of history and physical examination in surgical pathology, about the rules of asepsis and antiseptics in professional activities.
Faculty surgery, urology
Knowledge: etiology, pathogenesis, clinical picture, diagnostics and treatment of the main surgical diseases.
Skills : be able to determine indications for surgery for major surgical diseases.
Skills: apply knowledge of the etiology, pathogenesis, clinical picture, diagnosis and treatment of major surgical diseases in professional activities.
Faculty therapy
Knowledge: etiology, pathogenesis, clinical picture, diagnostics and treatment of the main therapeutic diseases.
Skills : be able to conduct differential diagnostics of acute abdominal pathologies with other diseases of internal organs.
Skills: apply knowledge of the etiology, pathogenesis, clinical picture, diagnosis and treatment of the main therapeutic diseases, differential diagnostics of acute abdominal pathologies with other diseases of internal organs in professional activities.
Medical rehabilitation

Knowledge: mechanism of action and physiological changes in the body after physiotherapy procedures, basics of therapeutic exercise in the rehabilitation of surgical patients, indications for spa treatment of surgical patients.
Skills : be able to prescribe physiotherapy procedures and special exercises taking into account the existing disease.
Skills: apply knowledge of physiotherapy and medical rehabilitation of surgical patients in professional activities.
Radiation diagnostics
Knowledge: main radiological signs of acute abdominal pathologies (intestinal obstruction, perforation of a hollow organ, etc.).
Skills : be able to interpret the results of radiological examination methods (irrigoscopy, intestinal MEF examination, etc.).
Skills: apply knowledge of the main radiological signs of acute abdominal pathologies (intestinal obstruction, perforation of a hollow organ, etc.) in professional activities.
Educational practice. Introductory practice - Practice for obtaining primary professional skills and abilities. General care of patients of therapeutic and surgical profile
Knowledge: fundamentals of sanitary and hygienic regimen, types of sanitary treatment of patients, principles of general and special care of patients, the importance of care in the treatment of patients.
Skills : carry out general patient care measures (hygiene of clothing, bedding, care of hair, eyes, ears, nails, use of bedpans, urine collectors, nutrition of patients, prevention of bedsores).
Skills: apply knowledge of the basics of sanitary and hygienic regimen, types of sanitary treatment of patients, principles of general and special care of patients, the importance of care in the treatment of patients in professional activities.
Industrial practice. Practice for obtaining primary professional skills and abilities in the position of mid-level medical personnel. Assistant ward nurse
Knowledge: organization of the work of a nurse's post, features of the work of mid-level medical personnel in a medical department .
Skills : performing therapeutic and diagnostic enemas, gastric lavage, inhalation of medications, collecting material for laboratory diagnostic tests (sputum, feces, urine), preparing patients for X-ray and instrumental diagnostic tests, performing basic resuscitation measures.
Skills: apply knowledge about the organization of work of a nurse's post, the specifics of the work of mid-level medical personnel in a medical department, as well as acquired practical skills, in professional activities.
Educational practice. Introductory practice – manipulative
Knowledge: job descriptions of nursing staff and the specifics of the work of nurses in the therapeutic, surgical and intensive care departments.
Skills : be able to perform nursing procedures (gastric probing, bladder catheterization, administering enemas, feeding patients, inhaling medications).
Skills: apply the knowledge and skills of nursing staff in professional activities.
Industrial practice. Practice for obtaining primary professional skills and abilities in the position of mid-level medical personnel. Assistant procedural nurse
Knowledge: principles of operation of a procedural room, duties of a procedural nurse.
Skills : perform subcutaneous, intradermal, intramuscular, intravenous injections and infusions .
Skills: apply knowledge about the principles of operation of a procedural room, the duties of a procedural nurse, as well as acquired practical skills, in professional activities.

1.7. Interdisciplinary connections of practice with subsequent disciplines and practices

Knowledge and skills acquired during industrial practice are necessary for studying subsequent disciplines and practices:

Item No.	Name of subsequent disciplines	Industrial practice "Practice of surgical profile. Assistant of hospital doctor"
1.	Phthisiology.	+
2.	Public health and healthcare, health economics.	+
3.	Infectious diseases. Epidemiology.	+
4.	Ophthalmology.	+
5.	Otorhinolaryngology.	+
6.	Forensic medicine. Sectional course.	+
7.	Oncology, radiation therapy.	+
8.	Clinical immunology.	+
9.	Outpatient therapy	+
10.	Anesthesiology, resuscitation, intensive care.	+
11.	Emergency conditions in the practice of a local therapist	+
12.	Hospital surgery, pediatric surgery.	+
13.	Hospital therapy.	+
14.	Clinical pharmacology	+
15.	Obstetrics and gynecology	+
16.	Pediatrics	+
17.	Life safety. Disaster medicine.	+
18.	Endocrinology.	+
19.	Dermatovenereology.	+
20.	Traumatology, orthopedics.	+
21.	Industrial practice. Practice to obtain professional skills and experience of professional activity - assistant doctor of an outpatient clinic	+

1.8. Requirements for the results of the internship

The industrial practice "Practice of the surgical profile. Assistant to the hospital physician" is aimed at the formation/improvement of the following competencies: universal (UC) - 4, general professional (GPC) - 1,2,4,5,7,10 and professional (PC) - 1,2,4,10,11,12.

No. n/n	Code and name of competence	Code and name indicator of competence achievement
Universal competencies		
1	UC-4. Able to apply modern communication technologies, including in foreign language (s), for academic and professional interaction.	ID UC-4.1. Uses communicative and linguistic tools to build effective partnerships with patients and colleagues; selects a communication style.
General professional competencies		
2	GPC-1. Capable of implementing moral and legal norms, ethical and deontological principles in professional activities	ID GPC-1.1. Carries out professional activities in accordance with ethical standards and moral principles.
3	GPC-2. Capable of conducting and monitoring the effectiveness of measures for prevention, healthy lifestyle formation and sanitary and hygienic education of the population	ID GPC-2.4. Performs ranking of risk factors for public health, selects and justifies optimal measures to minimize and eliminate health risks.
4	GPC-4. Capable of using medical products provided for by the procedure for providing medical care, as well as conducting patient examinations to establish a diagnosis	ID GPC-4.1. Uses modern medical technologies, specialized equipment and medical products, disinfectants, drugs, including immunobiological and other substances and their combinations when solving professional problems from the standpoint of evidence-based medicine. ID GPC-4.2. Knows the indications and contraindications for the appointment of instrumental, functional and laboratory examination methods, possible complications during the examination, emergency care and their prevention. ID GPC-4.3. Interprets the results of the most common methods of instrumental, laboratory and functional diagnostics, thermometry to identify pathological processes. ID GPC-4.4. Proficient in methods of general clinical examination of patients of various ages. ID GPC-4.5. Formulates a preliminary diagnosis and clinical diagnosis according to ICD.
5	GPC-5. Capable of assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	ID GPC-5.2. Knows the etiology, pathogenesis, morphogenesis, pathomorphosis of disease development, basic concepts of nosology.

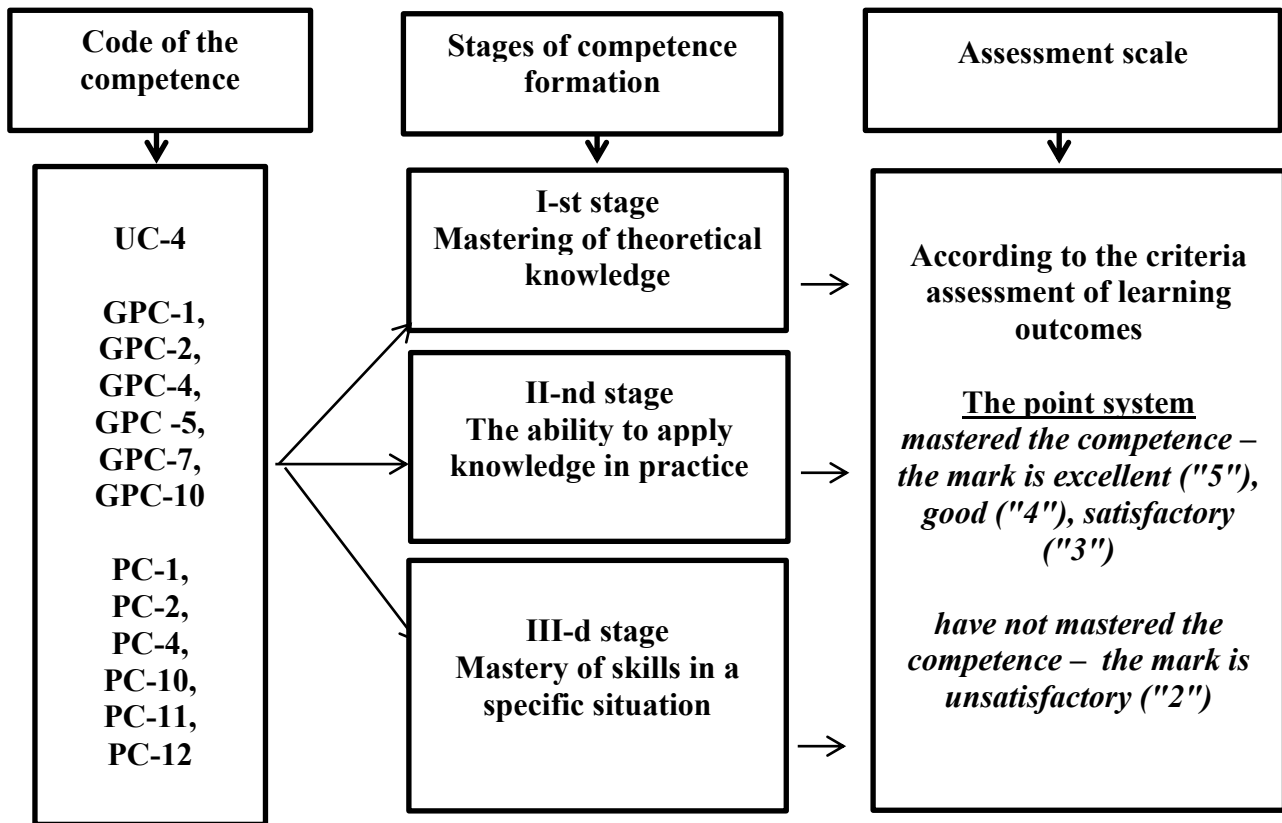
		<p>ID GPC-5.3. Knows the indicators of the morphofunctional, physiological state of a healthy person and can measure/determine them.</p> <p>ID GPC-5.4. Uses indicators of morphofunctional, physiological state and pathological process to examine the human body in order to establish a diagnosis, prescribe treatment and monitor its effectiveness and safety.</p>	
6	GPC-7. Capable of prescribing treatment and monitoring its effectiveness and safety	<p>ID GPC-7.3. Explains the main and side effects of drugs, the effects of their combined use and interaction with food, taking into account the morphofunctional features, physiological states and pathological processes in the human body</p> <p>ID GPC-7.4. Prescribes medications for the treatment of diseases and correction of pathological conditions, based on the characteristics of the pharmacokinetics and pharmacodynamics of drugs.</p> <p>ID GPC-7.5. Takes into account morphofunctional features, physiological states and pathological processes in the human body when choosing over-the-counter drugs and other pharmacy products.</p> <p>ID GPC-7.6. Analyzes the results of possible interactions of drugs during the combined use of various drugs.</p>	
7	GPC-10. Able to understand the principles of operation of modern information technologies and use them to solve problems of professional activity	<p>ID GPC-10.1. Maintains documentation support for professional activities taking into account modern information technologies.</p> <p>ID GPC-10.3. Carries out effective search for information necessary for solving problems of professional activity, using legal reference systems and professional databases</p>	
Professional competencies			
Labor functions		Code and name of professional competence	Code and name indicator of competence achievement
8	A/01.7 Diagnostics of diseases and (or) conditions in the profile of "therapy"	PC-1. Ability to collect and analyze complaints, life history, disease history patient for the purpose of establishing a diagnosis and (or) condition according to the profile "therapy"	<p>PC ID -1.1 . Collect complaints, medical history, and life history from a patient with a disease and/or condition in the "therapy" profile (or his/her legal representative)</p> <p>ID PC- 1.2. Interpret and analyze information received from a patient with a disease and/or condition in the "therapy" profile (or his/her legal representative)</p>

9		<p>PC-2. Ability to conduct a physical examination of a patient, analyze the results of additional examination methods in order to establish a diagnosis and (or) condition in the “therapy” profile</p>	<p>PC ID -2.1 . Conduct a physical examination of the patient (inspection, palpation, percussion, auscultation) and interpret its results</p> <p>PC ID -2.2 . Justify the need and scope of laboratory and instrumental examinations of a patient with a disease and/or condition in the “therapy” profile</p> <p>PC ID -2.3 . Conduct diagnostic manipulations and interpret the results obtained:</p> <ul style="list-style-type: none"> - measurement of blood pressure in peripheral arteries; - blood glucose level test - ambulatory blood pressure monitoring (ABPM) - pulse oximetry - reading spirograms - determination of the ankle -brachial index - conducting an orthostatic test - pneumotachometry - taking and decoding an electrocardiogram <p>PC ID -2.4 . Interpret the results of laboratory and instrumental examinations of patients</p> <p>ID PC -2.7 . Assess the severity of the disease and (or) the condition of the patient with the disease according to the profile "therapy"</p> <p>ID PC -2.8. Establish a diagnosis taking into account the ICD of a patient with a disease and (or) condition according to the profile "therapy"</p> <p>ID PC- 2.9. Conduct differential diagnostics of diseases and (or) conditions in the “therapy” profile, using diagnostic algorithms (primary, concomitant and complications) taking into account the ICD</p>
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10	A/02.7 Prescribing treatment to patients with diseases and (or) conditions in the “therapy” profile and monitoring its effectiveness and safety	PC-4. Ability to prescribe treatment to patients with diseases and (or) conditions in the profile of "therapy"	<p>ID PC- 4.1. To draw up and justify a treatment plan for a patient with a disease and (or) condition in the “therapy” profile, taking into account the diagnosis, age of the patient, clinical picture of the disease and (or) condition in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>ID PC- 4.2. Prescribe medicinal products, medical devices taking into account the clinical picture of the disease and (or) the condition in the profile "therapy" and the risk factors for its development in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care</p> <p>ID PC - 4.3. Prescribe non-drug treatment and therapeutic nutrition to a patient with a disease and (or) condition in the “therapy” profile, taking into account the diagnosis, age and clinical picture in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care.</p>
11	A/07.7. Conducting analysis of medical and statistical information, maintaining medical records, organizing the activities of medical personnel at their disposal .	PC-10. Readiness to conduct an analysis of medical and statistical indicators of morbidity, disability of patients with diseases and (or) conditions in the profile "therapy" to assess the health of the assigned population	<p>ID PC-10. 1. Make a work plan and report on your work</p> <p>ID PC-10. 2. Conduct an analysis of medical and statistical indicators of morbidity, disability of patients with diseases and (or) conditions in the profile "therapy" to assess the health of the assigned population</p> <p>ID PC-10.4. Comply with internal work regulations, fire safety requirements, labor protection and safety engineering.</p>
12		PC-11. Ability to maintain medical records and control the quality of their maintenance	<p>ID PC-11.1. Fill out medical documentation, including in the form of an electronic document, monitor the quality of its maintenance</p> <p>ID PC-11.2. Use in work personal data of patients and information constituting a medical secret</p> <p>ID PC-11.3. Use medical information systems and the Internet information and telecommunications network in professional activities.</p>

13	A/08.7. Provision of emergency and urgent medical care to patients	PC-12. Ability to provide medical care in emergency and urgent situations	ID PC -12.1. Recognize conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and (or) breathing, requiring emergency and urgent medical care ID PC -12.4. Perform basic cardiopulmonary resuscitation
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1.9. Stages of formation of competencies and description of assessment scales



2. Structure and content of practice

2.1 Scope of practice

Volume of practice	
Total labor intensity of practice in hours, total	72
Total workload in credit units, total	2
Type of intermediate assessment	credit

2.2. Type of practice – industrial.

Industrial practice is a mandatory section of the educational process, directly focused on the professional and practical training of students. When implementing the program, attention is paid to the students' development of the proposed list of mandatory practical skills.

Forms of training organization:

1. Conducting group and individual consultations for students by a basic or course supervisor.
2. Work at the patient's bedside: examining surgical patients and drawing up a plan for examining the patient in each specific case, participating in patient rounds, clinical discussions.
3. Work in diagnostic rooms: familiarization with the doctor's manipulations in the X-ray room, ultrasound diagnostic room, computed tomography and magnetic resonance imaging rooms, endoscopic rooms, principles of prescribing physiotherapy procedures.
4. Interpretation and use of laboratory and instrumental research methods for diagnostics.
5. Providing assistance in emergency conditions that threaten the patient's life and carrying out resuscitation measures: indirect heart massage, artificial ventilation of the lungs "mouth to mouth".

6. Selection of the optimal treatment option, prescription of drug therapy taking into account the pharmacokinetics and pharmacodynamics of drugs, prevention of their undesirable side effects.
7. Introduction to the work of a doctor in the admissions department, receiving patients on duty, diagnosing the most common infectious diseases, ENT pathologies, tuberculosis, mental illnesses, acute surgical diseases, gynecological diseases.
8. Practicing practical skills and abilities at the patient's bedside, on mannequins and dummies (including in the simulation and certification center).
9. Filling out medical documentation: medical histories, emergency notifications, referrals for additional examinations, extracts from medical histories.
10. Monitoring the work of mid-level and junior medical personnel, fulfilling doctor's orders.
11. Conducting conversations with patients and their relatives.

2.3. Criteria for assessing students' knowledge.

The assessment of learning outcomes is carried out in accordance with the "Regulations on the assessment system for the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of Russia".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- gross errors;
- similar errors;
- minor errors;
- shortcomings.

Criteria for assessing the theoretical part

"5" - for the depth and completeness of mastery of the content of the educational material, in which the student easily navigates, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present the answer competently and logically.

"4" - the student has fully mastered the educational material, is oriented in it, and correctly expresses the answer, but the content and form have some inaccuracies.

"3" - the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and substantiate his judgments.

"2" - the student has fragmented and unsystematic knowledge of the educational material, does not know how to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

Test control evaluation criteria

- "5" - allows up to 10% of incorrect answers during testing.
- "4" - allows up to 20% of incorrect answers during testing.
- "3" - allows up to 30% of incorrect answers during testing.
- "2" - allows more than 30% of incorrect answers during testing.

Assessment criteria for the practical part

"5" – the student has fully mastered the practical skills and abilities provided for by the work program of industrial practice.

“4” – the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.

“3” – the student has only some practical skills and abilities.

“2” – the student has only some practical skills and abilities and performs them with gross errors.

Criteria for final assessment (midterm assessment)

"5" excellent - for the depth and completeness of mastering the content of the educational material, in which the student easily navigates, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present an answer competently and logically; when testing, allows up to 10% of erroneous answers. Practical skills and abilities provided for by the work program of industrial practice have been fully mastered.

"4" good - the student has fully mastered the educational material, is oriented in it, correctly states the answer, but the content and form have some inaccuracies; during testing allows up to 20% of erroneous answers. Has fully mastered the practical skills and abilities provided by the work program, but allows some inaccuracies.

"3" satisfactory - the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, does not know how to express and justify his/her judgments; during testing, allows up to 30% of erroneous answers. Has only some practical skills and abilities.

"2" unsatisfactory - the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and secondary, makes mistakes in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% of erroneous answers during testing. Performs practical skills and abilities with gross errors.

3. Educational, methodological, logistical and informational support for practice

3.1. Primary literature

1. Kuzin, M. I. Surgical diseases: textbook / M. I. Kuzin, N. M. Kuzin, V. A. Kubyshkin [et al.]. - 5th ed., revised and enlarged. - Moscow: GEOTAR-Media, 2022. - 1024 p. - ISBN 978-5-9704-7014-5. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970470145.html> (date accessed: 01/27/2023). - Access mode: by subscription.

2. Saveliev, V. S. Surgical diseases. In 2 volumes. Volume 1: textbook / edited by V. S. Saveliev, A. I. Kiriyenko. - 2nd ed., revised and enlarged. - Moscow: GEOTAR-Media, 2017. - 720 p. - ISBN 978-5-9704-3998-2. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970439982.html> (date of access: 11.11.2024). - Access mode: by subscription.

3. Saveliev, V. S. Surgical diseases. In 2 volumes. Volume 2: textbook / edited by V. S. Saveliev, A. I. Kiriyenko. - 2nd ed., revised and enlarged. - Moscow: GEOTAR-Media, 2017. - 688 p. - ISBN 978-5-9704-3999-9. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970439999.html> (accessed: 11.11.2024). - Access mode: by subscription.

4. Komyakov, B.K. Urology textbook / B.K. Komyakov. - 2nd ed., revised and enlarged. - Moscow: GEOTAR-Media, 2022. - 480 p. - ISBN 978-5-9704-6431-1. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970464311.html> (date of access: 11.11.2024). - Access mode: by subscription.

3.2 Further reading

1. Krylov, N. N. Surgical diseases: in 2 volumes: Volume 1: textbook / edited by Krylov N. N. - Moscow: GEOTAR-Media, 2019. - 816 p. - ISBN 978-5-9704-5098-7. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL:

<https://www.studentlibrary.ru/book/ISBN9785970450987.html> (date accessed: 11.11.2024). - Access mode: by subscription.

2. Krylov, N. N. Surgical diseases: V. 2: textbook / edited by Krylov N. N. - Moscow: GEOTAR-Media, 2019. - 592 p. - ISBN 978-5-9704-5099-4. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970450994.html> (accessed: 11.11.2024). - Access mode: by subscription.

3. Glybochko, P. V. Urology. From symptoms to diagnosis and treatment. Illustrated guide / Ed. Glybochko P. V., Alyaev Yu. G., Gazimiev M. A. - Moscow: GEOTAR-Media, 2021. - 148 p. - ISBN 978-5-9704-6045-0. - Text: electronic // Electronic Library System "Student Consultant": [site]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970460450.html> (date accessed: 11.11.2024). - Access mode: by subscription.

4. Practical skills in surgery and first aid in critical conditions: a tutorial / edited by M. D. Dibirov. - Moscow: GEOTAR-Media, 2022. - 544 p. - ISBN 978-5-9704-6806-7. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970468067.html> (accessed: 03/14/2023). - Access mode: by subscription.

5. Achkasov, E. E. Surgical instruments and devices: purpose and use: atlas: textbook / edited by E. E. Achkasov, V. A. Musailov. - Moscow: GEOTAR-Media, 2021. - 208 p. - ISBN 978-5-9704-6003-0. - Text: electronic // Electronic Library System "Student Consultant": [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970460030.html> (accessed: 11.11.2024). - Access mode: by subscription.

6. Faculty surgery in 2 parts. Part 1: Electronic textbook for 3rd-4th year students / E. F. Cherednikov, G. V. Polubkova, I. N. Banin, et al. - Voronezh: VSMU im. N. N. Burdenko (Voronezh), 2020. - 180 p. - Text: electronic // EBS "Bookap": [site]. - URL: <https://www.books-up.ru/ru/book/fakultetskaya-hirurgiya-v-2-ch-ch-1-15428440/> (date of access: 03/15/2023). - Access mode: by subscription.

3.3. Educational and methodological materials prepared by the department staff:

- Educational aids (UMO)

1	Volochenko N.P. Asepsis and antisepsis / Study guide. - Blagoveshchensk. - 2012. -120 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/3-kurs/
2	Volochenko N.P. Transfusion of components, blood products and hemocorrectors / Study guide. - Blagoveshchensk. - 2012.-148 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/3-kurs/
3.	Volochenko N.P. Wound Treatment / Study Guide. - Blagoveshchensk. - 2014.-108 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/3-kurs/
4	Volochenko N.P. Anesthesia in surgery / Study guide. - Blagoveshchensk. - 2015.- 91 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/3-kurs/
5.	Volochenko N.P. Diagnostics and treatment of bleeding / Study guide. - Blagoveshchensk. - 2016.-140 p. (UMO stamp) + CD
6.	Volochenko N.P. Minimally invasive technologies in abdominal surgery / Study guide. - Blagoveshchensk. - 2017.-121 p. (UMO stamp) + CD
7.	Volochenko N.P. Abdominal trauma / Study guide. - Blagoveshchensk. - 2018. - 108 p. (UMO stamp) + CD
8.	Volochenko N.P. Purulent surgical infection and diabetes mellitus / Study guide. - Blagoveshchensk. - 2019. - 102 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/4-kurs/
9.	Volochenko N.P. Diagnostics and treatment of complications of gastric ulcer and duodenal ulcer / Study guide. - Blagoveshchensk. - 2024. - 111 p. (UMO stamp) + CD Access mode: https://amurgma.ru/zakrytaya-chast-sayta/4-kurs/

Electronic and digital technologies:

1. Multimedia presentations for lectures, posted in the Electronic Information System of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy.

Access mode:

<https://educ-amursma.ru/course/view.php?id=56>

<https://educ-amursma.ru/course/view.php?id=170>

2. Videos:

1. Surgical atlas.
2. New technologies in surgery.
3. Liver cyst resection.
4. Postcholecystectomy syndrome.
5. Pancreatic cysts. Pancreatoduodenal resection.
6. Liver tumors.
7. Chronic pancreatitis.
8. Gallstone disease.
9. Colon surgery.
10. Educational and methodological manuals of the department.
11. Rectal polyps.
12. Endoscopic papillosphincterotomy.
13. Crohn's disease.
14. Peritonitis.
15. Acute and chronic pancreatitis.
16. Acute appendicitis.
17. Surgery of peptic ulcer and its complications.
18. Pathogenesis of hemorrhoids.
19. Portal hypertension.
20. Injuries of the duodenum.
21. Minimally invasive liver surgery.
22. Echinococcus.
23. DIC syndrome.
24. Operation Liechtenstein.
25. Minimally invasive methods of treating hemorrhoids.
26. Modern methods of detoxification in peritonitis.

3. Electronic teaching aids:

Posted on the website of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy. Access mode:

<https://amurgma.ru/zakrytaya-chast-sayta/3-kurs/>

<https://amurgma.ru/zakrytaya-chast-sayta/4-kurs/>

3.4. Material and technical base for conducting internship

No. p/p	Name	Quantity
	Classrooms equipped with specialized furniture	
	Classroom No. 4	
1.	Teacher's desk	1 pc.
2.	Study table	3 pcs.
3.	Chairs	14 pcs.

4.	Educational and visual aids: stands	4 pcs.
5.	Blood grouping kits	2 pcs.
6.	Bix	1 pc.
7.	Set of surgical instruments	1 pc.
8.	Set of hemocorrectors	1 pc.
9.	Blood transfusion systems	10 pcs.
Classroom No. 6		
10.	Board	1 pc.
11.	Teacher's desk	1 pc.
12.	Study table	3 pcs.
13.	Chairs	18 pcs.
14.	Educational and visual aids: stands	3 pcs.
15.	Computer	1 pc.
16.	Monitors	5 pcs.
Classroom for practicing practical skills		
17.	Table	3 pcs.
18.	Chairs	12 pcs.
19.	Blood transfusion systems	15 pcs.
20.	Mannequin for resuscitation	1 pc.
21.	Mannequins for performing intramuscular injections	2 pcs.
22.	Mannequins for performing IV injections	2 pcs.
Medical premises, medical equipment (equipment) of a medical organization in accordance with the "Agreement on the organization of practical training of students during industrial practice"		

3.5. Professional databases, information and reference systems, electronic educational resources.

Resource name	Resource Description	Access	Resource address
Electronic library systems			
"Student consultant. Electronic library of the medical university"	For students and teachers of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids and periodicals.	Remote access after registration under the university profile	https://www.studentlibrary.ru/
Reference and information system "MedBaseGeotar".	The reference and information system "MedBaseGeotar" is intended for practicing medical specialists, researchers, teachers, postgraduate students, residents, senior students, and healthcare managers for the rapid search, selection, and reading of medical literature necessary for work in a single data source.	Remote access after registration under the university profile	https://mbasegeotar.ru/pages/index.html
Electronic library system "Bookup"	Large medical library - information and educational platform for the joint use of electronic educational, educational and methodological publications of medical universities of Russia and the CIS countries	Remote access after registration under the university profile	https://www.books-up.ru/
EBS "Lan"	Network electronic library of medical universities - an electronic database of educational and scientific works on medical topics, created for the purpose of implementing network forms of professional educational programs, open access to educational materials for partner universities	Remote access after registration under the university profile	https://e.lanbook.com/
Scientific electronic library "CyberLeninka"	CyberLeninka is a scientific electronic library built on the paradigm of open science (Open Science), the main tasks of which are the popularization of science and scientific activity, public control of the quality of scientific publications, the development of interdisciplinary research, a modern institute of scientific	free access	https://cyberleninka.ru/

	review, increasing the citation of Russian science and building a knowledge infrastructure. Contains more than 2.3 million scientific articles.		
Oxford Medicine Online	A collection of Oxford medical publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, both of which are continually updated electronically.	free access	http://www.oxfordmedicine.com
Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , pathology . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences .)	free access	http://humbio.ru/
Medical online library	Free reference books, encyclopedias, books, monographs, abstracts, English-language literature, tests.	free access	https://www.medlib.ru/library/library/books
Information systems			
Clinical Guidelines Rubricator	A resource of the Russian Ministry of Health that contains clinical recommendations developed and approved by medical professional non-profit organizations of the Russian Federation, as well as methodological guidelines, nomenclatures and other reference materials.	link to download the application	https://cr.minzdrav.gov.ru/#/
Federal Electronic Medical Library (FEMB)	The Federal Electronic Medical Library is part of the unified state information system in the field of healthcare as a reference system . FEMB was created on the basis of the funds of the Central Scientific Medical Library named after I.M. Sechenov.	free access	https://femb.ru/
Russian Medical Association	Professional Internet resource. Objective: to promote effective professional activity of medical personnel. Contains the charter, personnel, structure, rules of entry, information about the Russian Medical Union.	free access	http://www.rmass.ru/
Web-medicine	The site presents a catalog of professional medical resources, including links to the most authoritative subject sites, journals, societies, as well as useful documents and programs. The site is intended for doctors, students, employees of medical universities and scientific institutions.	free access	http://webmed.irkutsk.ru/
Databases			
World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications and much more.	free access	http://www.who.int/ru/
Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more	free access	http://www.minobrnauki.gov.ru
Ministry of Education of the Russian Federation	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications and much more	free access	https://edu.gov.ru/
Federal portal "Russian education"	A single window for access to educational resources. This portal provides access to textbooks on all areas of medicine and health care.	free access	http://www.edu.ru/
Polpred.com	Electronic library system Business media. Media Review	free access	https://polpred.com/news
Bibliographic databases			
Database "Russian Medicine"	It is created in the Central Scientific and Methodological Library and covers the entire collection, starting from 1988. The database contains bibliographic descriptions of articles from domestic journals and collections, dissertations and their abstracts, as well as domestic and foreign books, collections of institute proceedings, conference materials, etc. Thematically, the database	free access	https://rucml.ru/

	covers all areas of medicine and related areas of biology, biophysics, biochemistry, psychology, etc.		
PubMed	A text database of medical and biological publications in English. The PubMed database is an electronic search engine with free access to 30 million publications from 4,800 indexed journals on medical topics. The database contains articles published from 1960 to the present day, including information from MEDLINE, PreMEDLINE, NLM. Each year, the portal is replenished with more than 500 thousand new works.	free access	https://pubmed.ncbi.nlm.nih.gov/
eLIBRARY.RU	Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of more than 13 million scientific articles and publications. The eLIBRARY.RU platform provides electronic versions of more than 2,000 Russian scientific and technical journals, including more than 1,000 open access journals.	Full functionality of the site is available after registration	http://elibrary.ru/defaultx.asp
Electronic library of dissertations (RSL)	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	free access	http://diss.rsl.ru/?menu=disscatalog/
Medline.ru	Medical and biological portal for specialists. Biomedical journal.	free access	https://journal.scbmt.ru/jour/index
Official Internet portal of legal information	The single official state information and legal resource in Russia	free access	http://pravo.gov.ru/

3.6. Licensed and freely distributed software used in the educational process

List of software (commercial software products)

No. p/p	List of software (commercial software products)	Details of supporting documents
1.	MS Operating System Windows 7 Pro	License number 48381779
2.	MS Operating System Windows 10 Pro	CONTRACT No. UT-368 from 09.21.2021
3.	MS Office	License number: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for Business – Standard Russian Edition. 50-99 Node 1 year Educational Renewal License	Agreement No. 7 AA dated 02/07/2025
5.	1C Accounting and 1C Salary	LICENSE AGREEMENT 612/L dated 02.02.2022 (additional licenses)
6.	1C: PROF University	LICENSE AGREEMENT No. KrTsB-004537 dated 12/19/2023
7.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated 11.11.2020
8.	Consultant Plus	Contract No. 41AA dated 12/27/2024
9.	Contour.Tolk	Agreement No. K213753/24 dated 13.08.2024
10.	E-learning environment 3KL (Russian Moodle)	Agreement No. 1362.5 dated November 20, 2024
11.	Astra Linux Common Edition	Agreement No. 142 A dated September 21, 2021
12.	Information system "Plans"	Agreement No. 2873-24 dated June 28, 2024
13.	1C: Document Management	Agreement No. 2191 dated 10/15/2020
14.	R7-Office	Agreement No. 2 KS dated 12/18/2020
15.	License "OS ROSA CHROME workstation"	Agreement No. 88A dated 08/22/2024
16.	Alt Virtualization Server 10 (for secondary specialized and higher professional education)	Agreement No. 14AK dated 09/27/2024
17.	Dr.Web Desktop Security Suite Comprehensive protection + Control Center for 12 months.	Agreement No. 8 dated October 21, 2024
18.	Software "Schedule for educational institutions"	Agreement No. 82A dated July 30, 2024

List of freely distributed software

No. p/p	List of freely distributed software	Links to license agreement
1.	Yandex Browser	Freely distributed

		License agreement for the use of Yandex Browser programs https://yandex.ru/legal/browser_agreement/
2.	Yandex.Telemost	Freely distributed License Agreement for the Use of Programs https://yandex.ru/legal/telemost_mobile_agreement/
3.	Dr.Web CureIt!	Freely distributed License Agreement: https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Freely distributed License: http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Freely distributed License: https://ru.libreoffice.org/about-us/license/
6.	VK Calls	Freely distributed https://vk.com/license
7.	Kaspersky Free Antivirus	Freely distributed https://products.s.kaspersky-labs.com/homeuser/Kaspersky4Win2021/21.16.6.467/english-0.207.0/3830343439337c44454c7c4e554c4c/kis_eula_en-in.txt

3.7 Resources of the information and telecommunications network "Internet"

Standards of Primary Health Care

<https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy-mediko-sanitarnoy-pomoschi>

Standards of specialized medical care

<https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi>

Procedures for providing medical care to the population of the Russian Federation

<https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii>

Federal Electronic Medical Library

<http://www.femb.ru> (Clinical guidelines)

The Amur State Medical Academy library

<https://amurgma.ru/obuchenie/biblioteki/biblioteka-amurskoy-gma/>

The Electronic Library System "Student Consultant"

<https://www.studentlibrary.ru>

4. Evaluation Fund

4.1. Test tasks for intermediate knowledge control

Conducted in the Moodle system

Access mode: <https://educ-amursma.ru/course/view.php?id=707>

Number of test tasks – 100

One correct answer.

1. COMPENSATED PYLORODUODENAL STENOSIS IS CHARACTERISTIC

- 1) hunger pains in the epigastric region
- 2) severe condition of patients, exhaustion, dehydration, adynamia
- 3) profuse daily, sometimes multiple, often foul-smelling vomiting
- 4) thirst, decreased diuresis, constipation, and sometimes diarrhea

2. THE STAGE OF PYLORODUODENAL STENOSIS ALLOWS TO BE ESTABLISHED

- 1) dynamic fluoroscopy of the stomach

- 2) intragastric pH-metry
 - 3) electrogastrography
 - 4) esophagogastrroduodenoscopy
3. THE CAUSE OF STOMACH OUTLET STENOSIS CAN BE IDENTIFIED
- 1) esophagogastrroduodenoscopy with biopsy
 - 2) dynamic fluoroscopy of the stomach
 - 3) intragastric pH-metry
 - 4) electrogastrography

The correct answer is always 1.

4.2. List of practical skills that a student should have after completing the internship

1. Examination of a surgical patient.
2. Preparation of medical records: initial examinations, case diaries, stage and discharge summaries, preoperative reports, and operation protocols.
3. Reading radiographs in acute surgical pathology of the abdominal and thoracic cavities, bone fractures.
4. Measurement of blood pressure, heart rate, respiratory rate, pulse.
5. Carrying out gastric lavage using a probe.
6. Conducting an assessment of the results of clinical blood tests and urine tests.
7. Conducting an assessment of the results of a biochemical blood test (liver function tests, glucose, bilirubin, lipid spectrum, transaminases, acute phase proteins, troponins, serum iron, procalcitonin).
8. Conducting an assessment of the results of computed tomograms.
9. Conducting an assessment of the results of duodenal intubation.
10. Conducting an assessment of the results of the coprogram.
11. Practical skills acquired under the supervision of a physician:
 - application of traction in fractures;
 - application of splints and plaster casts;
 - determination of blood groups.
 - administration of antitetanus serum
 - venesection;
 - removal of atheromas, lipomas;
 - opening and drainage of purulent cavities in the subcutaneous tissue;
 - performing compatibility tests and performing blood transfusion operations;
 - fistulography;
 - performing a puncture of the pleural cavity ;
 - performing a puncture of the abdominal cavity ;
 - performing percutaneous diagnostic puncture of formations, abscesses;
 - performing dressings (cleaning of clean and purulent wounds) for a surgical patient ;
 - performing local (conduction and infiltration) anesthesia ;
 - performing catheterization of the bladder, cystoscopy (under the supervision of a physician) ;
 - relief of emergency conditions: anaphylactic shock ;
 - relief of emergency conditions: gastrointestinal bleeding ;
 - relief of emergency conditions: hepatic coma ;
 - relief of emergency conditions: portal hypertension (stopping bleeding from varicose veins of the esophagus using a Blackmore obturator tube) ;
 - relief of emergency conditions: hepatic colic ;
 - relief of emergency conditions: renal colic ;
 - relief of emergency conditions: acute urinary retention.

12. Other skills (presence):

- fibrogastroduodenoscopy;
- ultrasound examination of internal organs;
- bronchoscopy;
- irrigoscopy;
- colonoscopy;
- retrograde cholangiopancreatography;
- pathological examination of corpses.

13. Skills according to the order of the Ministry of Health of Russia dated March 29, 2020 N 248 "On the organization of practical training of students in educational programs of medical and pharmaceutical education in the context of preventing the spread of a new coronavirus infection in the territory of the Russian Federation":

- advisory support to the population on issues of organizing medical care for the population in case of suspected coronavirus infection, including consulting for persons in self-isolation;
- processing of statistical information related to coronavirus infection;
- participation in the preparation of information messages on issues related to coronavirus infection;
- conducting preventive and educational activities among the population on issues related to coronavirus infection;
- participation in identifying the circle of persons who have been in contact with persons suspected of having coronavirus infection or confirmed cases of coronavirus infection;
- participation in the provision of medical care in medical organizations, including those providing specialized medical care.

4.3. List of questions for the midterm assessment

I. Emergency care for:

1. Bleeding from the gastrointestinal tract;
2. Hemorrhagic and traumatic shock;
3. For fractures of long tubular bones;
4. Rib fractures;
5. Open and closed pneumothorax.

II . Classification:

6. Acute cholecystitis
7. Acute appendicitis
8. Acute intestinal obstruction
9. Acute pancreatitis
10. Peritonitis
11. Hernias
12. Abdominal injuries.

III . Evaluation of paraclinical research methods:

13. Gastric lavage technique
14. Bladder catheterization technique
15. Abdominocentesis technique.
16. Pleural puncture technique
17. Evaluation of clinical blood and urine tests
18. Evaluation of biochemical parameters
19. Blood transfusion
 - determination of the blood group of the patient and the donor
 - conducting a compatibility test according to the ABO system
 - conducting a Rh compatibility test

- conducting a biological test

20. Description of R -gram

IV . Principles of treatment:

21. Acute cholecystitis

22. Acute appendicitis

23. Acute intestinal obstruction

24. Acute pancreatitis

25. Peritonitis

26. Hernias

27. Principles of treatment of complications of peptic ulcer disease

28. Surgical treatment of complications of peptic ulcer disease

29. Purulent diseases of the skin and subcutaneous fat.

V. Historical aspects:

30. Merits of domestic scientists in the development of surgical sciences.

APPROVED

at a meeting of the Department of Surgery with a course of
Urology

Protocol No.8 dated 24.04.2026

Head of the department

Volodchenko N.P.

**ADDITIONS AND CHANGES TO THE WORK PROGRAM FOR
INDUSTRIAL PRACTICE "PRACTICE OF SURGICAL PROFILE.
ASSISTANT TO THE HOSPITAL PHYSICIAN"
SPECIALTY 31.05.01 General Medicine
FOR THE 2026-2027 ACADEMIC YEAR**

1. Make additions and changes to section 3.3. Educational and methodological materials prepared by department staff:

Educational aids (UMO):

N.P. Volodchenko. Diagnostics and treatment of chronic diseases of the pancreas – Blagoveshchensk: Amur State Medical Academy, 2026. – 104 p.

2. The tables in section 3.5. “Licensed and freely distributed software used in the educational process”, “ Professional databases, information and reference systems, electronic educational resources ” shall be set out as follows:

List of software (commercial software products)

No. p/p	List of software (commercial software products)	Details of supporting documents
1.	MS operating system Windows 7 Pro	License number 48381779
2.	MS operating system Windows 10 Pro	CONTRACT No. UT-368 from September 21, 2021
3 .	MS Office	License numbers: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for Business - Standard Russian Edition . 50-99 Node 1-year Educational Renewal License	Agreement No. 7 AA dated 02/07/2025
5.	1C Accounting and 1C Salary	LICENSE AGREEMENT 612/L dated 02.02.2022 (additional licenses)
6.	1C: PROF University	LICENSE AGREEMENT No. KrTsB-004537 dated December 19, 2023
7.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020
8.	Consultant Plus	Contract No. 41AA dated December 27, 2024
9.	Kontur.Tolk	Agreement No. K213753/24 dated August 13, 2024

10.	3KL e-learning environment (Russian Moodle)	Agreement No. 1362.5 dated November 20, 2024
11.	Astra Linux Common Edition	Agreement No. 142 A dated September 21, 2021
12.	Information system "Plans"	Agreement No. 2873-24 dated June 28, 2024
13.	1C: Document Management	Agreement No. 2191 dated 10/15/2020
14.	R7-Office	Agreement No. 2 KS dated 12/18/2020
15.	License for the "ROSA CHROME OS Workstation"	Agreement No. 88A dated 08/22/2024
16.	Alt Virtualization Server 10 (for secondary and higher vocational education)	Agreement No. 14AK dated September 27, 2024
17.	Dr.Web Desktop Security Suite Comprehensive Protection + Control Center for 12 months.	Agreement No. 8 dated October 21, 2024
18.	Software "Schedule for educational institutions"	Agreement No. 82A dated July 30, 2024

List of freely distributed software

No . p/p	List of freely distributed software	Links to the license agreement
1.	Yandex Browser	Freely distributed License Agreement for the Use of Yandex Browser Software https://yandex.ru/legal/browser_agreement/
2.	Yandex.Telemost	Freely distributed License Agreement for the Use of Software https://yandex.ru/legal/telemost_mobile_agreement/
3.	Dr.Web CureIt !	Freely distributed License Agreement: https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Freely distributed License: http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Freely distributed License: https://ru.libreoffice.org/about-us/license/
6.	VK Calls	Freely distributed https://vk.com/licence
7.	Kaspersky Free Antivirus	Freely distributed https://products.s.kaspersky-labs.com/homeuser/Kaspersky4Win2021/21.16.6.467/english-0.207.0/3830343439337c44454c7c4e554c4c/kis_eula_en-in.txt

Professional databases, information and reference systems, electronic educational resources

Resource name	Resource Description	Access	Resource address
Electronic library systems			

<p>Student Consultant. Medical University Electronic Library</p>	<p>For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.</p>	<p>Remote access after registration under the university profile</p>	<p>https://www.studentlibrary.ru/</p>
<p>Reference and information system " MedBaseGeotar "</p>	<p>The MedBaseGeotar reference and information system is designed for practicing medical specialists, researchers, teachers, postgraduate students, residents, senior students, and healthcare managers to quickly search, select, and read the medical literature they need for their work in a single data source.</p>	<p>Remote access after registration under the university profile</p>	<p>https://mbasegeotar.ru/pages/index.html</p>
<p>Electronic Library System " Bookup "</p>	<p>A large medical library is an information and educational platform for the shared use of electronic educational and methodological publications from medical universities in Russia and the CIS countries.</p>	<p>Remote access after registration under the university profile</p>	<p>https://www.books-up.ru/</p>
<p>Electronic Block System "Lan"</p>	<p>The Network Electronic Library of Medical Universities is an electronic database of educational and scientific works on medical topics, created for the purpose of implementing network forms of professional educational programs, open access to educational materials for partner universities.</p>	<p>Remote access after registration under the university profile</p>	<p>https://e.lanbook.com/</p>
<p>Scientific electronic library " CyberLeninka "</p>	<p>CyberLeninka is a scientific electronic library built on the Open Science paradigm. Its primary goals are the popularization of science and scientific activity, public oversight of the quality of scientific publications, the development of interdisciplinary research, a modern institution of scientific review, increasing the citation rate of Russian science, and building a knowledge infrastructure. It contains over 2.3 million scientific articles.</p>	<p>free access</p>	<p>https://cyberleninka.ru/</p>

Human Biology Knowledge Base	Reference information on <u>physiology</u> , <u>cell biology</u> , <u>genetics</u> , <u>biochemistry</u> , <u>immunology</u> , <u>pathology</u> . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences.)	free access	http://humbio.ru/
State Register of Medicines	The State Register of Medicines website contains information about medications: indications, contraindications, mechanism of action, side effects, dosages, and methods of administration.	free access	https://grls.rosminzdrav.ru/GRLS.aspx
Information systems			
Clinical Guidelines Index	A resource of the Russian Ministry of Health that contains clinical guidelines developed and approved by medical professional non-profit organizations of the Russian Federation, as well as methodological manuals, nomenclatures, and other reference materials.	Link to download the application	https://cr.minzdrav.gov.ru/#/
Federal Electronic Medical Library (FEMB)	The Federal Electronic Medical Library is part of the unified state information system in the field of healthcare as a reference system. The FEMB was created on the basis of the funds of the Central Scientific Medical Library named after I.M. Sechenov.	free access	https://femb.ru/
Russian State Library (RSL)	Collection size: approximately 3 million titles Period covered: from the 11th century to the present The Russian State Library's Electronic Library is a collection of electronic copies of valuable and frequently requested publications from the Russian State Library's collections, from external sources, as well as documents originally created in electronic form.	Registration on the website	https://www.rsl.ru/
Russian Medical Association	A professional online resource. Purpose: to promote effective professional activity among medical personnel. Contains the charter, personnel, structure, membership rules,	free access	http://www.rmass.ru/

	and information about the Russian Medical Union.		
Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	free access	http://webmed.irkutsk.ru/
Databases			
World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	free access	http://www.who.int/ru/
Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	free access	http://www.minobrnauki.gov.ru
Ministry of Education of the Russian Federation	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	free access	https://edu.gov.ru/
Polpred.com	Electronic library system Business media. Media review	free access	https://polpred.com/news
Bibliographic databases			
Database "Russian Medicine"	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of	free access	https://rucml.ru/

	biology, biophysics, biochemistry, psychology, etc.		
PubMed	A text database of medical and biological publications in English. PubMed is an electronic search engine with free access to 30 million publications from 4,800 indexed medical journals. The database contains articles published from 1960 to the present, including information from MEDLINE, PreMEDLINE, and NLM. Each year, the portal is updated with more than 500,000 new papers.	free access	https://pubmed.ncbi.nlm.nih.gov/
eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 open-access journals.	Full functionality of the site is available after registration.	http://elibrary.ru/defaultx.asp
Electronic library of dissertations (RSL)	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	free access	http://diss.rsl.ru/?menu=disscatalog/
Medline.ru	Medical and biological portal for specialists. Biomedical journal.	free access	https://journal.scbmt.ru/jour/index
Official Internet portal of legal information	The single official state information and legal resource in Russia	free access	http://pravo.gov.ru/