

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра хірургії, травматології, ортопедії та фтизіатрії

SURGERY

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council

Protocol dated _____ № _____

Chairman of the Quality Council

Petrashenko Viktoriia
Oleksandrivna

DATA ON REVIEWS AND APPROVAL

Author

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Duzhyi Ihor Dmytrovych

Review of the course descriptor	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
Considered and approved at the meeting of the work group of Study programme Медицина	Protocol dated _____ № _____ Head of the work group (Head of the Study programme) _____ Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра хірургії, травматології, ортопедії та фтизіатрії	Protocol dated _____ № _____ Head of the Department _____ Duzhyi Ihor Dmytrovych

SYLLABUS

1. General information on the course

Full course name	Surgery
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра хірургії, травматології, ортопедії та фтизіатрії
Author(s)	Danylenko Ihor Anatoliiiovych, Duzhyi Ihor Dmytrovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	18 weeks across 8 semester
Workload	3 ECTS, 90 hours. For full-time course 64 hours are working hours with the lecturer (6 hours of lectures, 58 hours of seminars), 26 hours of the individual study.
Language(s)	English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	"Krok-1" Necessary knowledge of: life safety, basics of bioethics and life protection, first aid, hygiene and ecology pathomorphology, pathophysiology, pharmacology, general surgery, propaedeutics of internal medicine, propaedeutics of pediatrics, radiology, patient care, nursing practice
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

To achieve by students modern knowledge and professional skills in etiology, pathogenesis, typical clinical manifestations, modern methods of diagnosis, conservative and operative treatment, rehabilitation of patients with surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum, which correspond to the doctor of a general practice.

4. Contents

Module 1. «Urgent surgical diseases of the abdominal cavity»

<p>Topic 1 Control of the residual level of knowledge from I - III courses. Principles of formation of preliminary and clinical diagnosis.</p> <p>Principles of disease recognition and formation of preliminary diagnosis. Methods of curation of surgical patients, features of subjective and objective examination. Principles of formation of preliminary and clinical diagnosis.</p>
<p>Topic 2 Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall</p> <p>Anatomical and physiological features of the abdominal wall. Abdominal hernias. Component hernias. Classification of abdominal wall hernias, their surgical anatomy, etiology, pathogenesis, clinic. Diagnosis and differential diagnosis, treatment of patients with hernias of different localizations. Methods and techniques of operations. Prevention. Actions of a general practitioner in the presence of a hernia patient.</p>
<p>Topic 3 Herniated syndrome. Complications of anterior abdominal wall hernias</p> <p>Complications of hernias (coprostasis, strangulation, inflammation): definition, causes, mechanism of development. Clinic, diagnostics and differential diagnosis. Features of surgical interventions. Tactics of the doctor at independent management of the strangulation hernia.</p>
<p>Topic 4 Acute inflammatory abdominal syndrome</p> <p>Acute appendicitis. Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis. Features of the course of acute appendicitis in children, pregnant women and the elderly</p>
<p>Topic 5 Acute inflammatory abdominal syndrome</p> <p>Acute appendicitis: diagnosis, differential diagnosis. Treatment of appendicitis: tactics, types and techniques of appendectomy. Features of the postoperative period.</p>
<p>Topic 6 Acute inflammatory abdominal syndrome</p> <p>Complications of acute appendicitis and appendectomy: appendicular infiltrate, appendicular abscess, peritonitis. Etiology, pathogenesis, pathomorphology, clinic, diagnosis, differential diagnosis. Therapeutic tactics.</p>
<p>Topic 7 Acute inflammatory abdominal syndrome</p> <p>Anatomical and physiological features of the extrahepatic bile ducts. Etiology, pathogenesis and classification of acute cholecystitis. Clinic, its peculiarity of clinical course in the elderly and with concomitant pathology</p>
<p>Topic 8 Acute inflammatory abdominal syndrome</p> <p>Acute cholecystitis. Diagnosis, differential diagnosis, treatment of acute cholecystitis. Conservative and operative treatment, types of operations. The role of minimally invasive methods of diagnosis and treatment</p>
<p>Topic 9 Acute inflammatory abdominal syndrome</p> <p>Complications of acute cholecystitis and cholecystectomy. Intraoperative injuries of the extrahepatic bile ducts, vessels, abdominal organs. Clinical symptoms, diagnosis and surgical tactics. Treatment.</p>

<p>Topic 10 Acute inflammatory abdominal syndrome</p> <p>Anatomical and physiological features of the pancreas. Acute pancreatitis. Etiology, pathogenesis, classification, clinic.</p>
<p>Topic 11 Acute inflammatory abdominal syndrome</p> <p>Diagnosis of acute pancreatitis: laboratory and instrumental methods. Differential diagnosis of acute pancreatitis. Treatment. Technique of surgical interventions, the role of minimally invasive methods.</p>
<p>Topic 12 Acute inflammatory abdominal syndrome</p> <p>Complications of acute pancreatitis (pancreatic necrosis, gland abscess, peritonitis). Clinic, diagnosis, surgical tactics and treatment. Technique of surgical interventions, the role of minimally invasive methods.</p>
<p>Topic 13 Gastrointestinal bleeding</p> <p>Gastrointestinal bleeding as a complication of diseases of the stomach and duodenum. Causes, pathogenesis, classification, clinic. Laboratory and instrumental methods of diagnosis, endoscopic classification. Differential diagnosis of GIB</p>
<p>Topic 14 Gastrointestinal bleeding</p> <p>Therapeutic tactics for bleeding from the upper gastrointestinal tract: prehospital care, inpatient treatment, indications for the choice of conservative treatment, endoscopic methods of hemostasis, surgery. Methods of surgical treatment, their technique</p>
<p>Topic 15 Gastrointestinal bleeding</p> <p>Acute and chronic bleeding from the lower gastrointestinal tract: cancer of the small and large intestine and hemorrhoids are complicated by bleeding. Causes, pathogenesis, classification, clinic. Laboratory and instrumental diagnostic methods. Differential diagnosis of bleeding from the upper and lower gastrointestinal tract. Therapeutic tactics, pre-hospital care, treatment.</p>
<p>Topic 16 Intestinal obstruction</p> <p>Acute mechanical intestinal obstruction . Etiology and pathogenesis. Classification. Clinical picture according to stage. The concept of adhesive peritoneal disease, acute adhesive intestinal obstruction: features of pathogenesis and clinic. Early clinical signs of strangulation intestinal obstruction.</p>
<p>Topic 17 Intestinal obstruction</p> <p>Modern medical and diagnostic tactics for Acute mechanical intestinal obstruction. Features of examination of the patient, methods. Differential diagnosis. Treatment of patients with Acute mechanical intestinal obstruction: preoperative preparation, principles of surgical interventions, intubation of the small and large intestine: types, technique. Features of the postoperative period</p>

Topic 18 Intestinal obstruction

Acute dynamic intestinal obstruction. Hirschsprung-Favolli disease, toxic poisoning, inflammatory diseases of the abdominal cavity as a cause of Acute mechanical intestinal obstruction, pathogenesis. Classification. Clinical picture according to the cause and stage. Diagnosis, differential diagnosis. Therapeutic tactics for dynamic Acute mechanical intestinal obstruction, principles of surgical interventions, justification of different types of intestinal decompression. Features of conservative therapy.

Topic 19 Perforation of the hollow organ, peritonitis

Anatomical and physiological features of the peritoneum. Acute peritonitis. Etiology, pathogenesis, classification. Clinic of local and widespread acute peritonitis. Diagnosis, differential diagnosis.

Topic 20 Perforation of the hollow organ, peritonitis

Treatment tactics for acute local and widespread peritonitis. Features of preoperative preparation: correction of water-electrolyte disorders and protein metabolism, detoxification. Nutritional therapy: parenteral and early enteral. Surgical treatment, method of programmed relaparotomy, rehabilitation and laparostomy. Indications and methods of intubation of the small intestine

Topic 21 Perforation of the hollow organ, peritonitis

Perforated gastroduodenal ulcer. Etiopathogenesis, classification. Clinic of typical and atypical perforated gastroduodenal ulcer. Diagnosis and differential diagnosis.

Topic 22 Perforation of the hollow organ, peritonitis

Therapeutic tactics for perforated gastroduodenal ulcer. Preparing the patient for surgery. Methods and techniques of performing surgical interventions. Conservative therapy in the postoperative period.

Module 2. «Urgent surgical diseases of the colon and rectum and perianal area»

Topic 23 Acute pain syndrome in the rectum and perianal area

Acute hemorrhoids and acute anal fissure: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, possible complications, prevention. Actions of a general practitioner in the presence of an acute hemorrhoid and anal fissure. Inflammation of the epithelial coccygeal passages and coccygeal cyst: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, possible complications. Actions of the general practitioner in the presence of the patient of volume formations and pain in the perianal area

Topic 24 Acute pain syndrome in the rectum and perianal area

Acute pain syndrome in the perianal area. Acute paraproctitis: causes, pathogenesis, classification, clinic, diagnosis, treatment, possible complications.

Topic 25 Rectal prolapse syndrome

Rectal prolapse: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment tactics. Types of operations, equipment. Actions of a general practitioner if the patient has rectal prolapse. Chronic hemorrhoids: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment tactics, prevention. Types of operations, equipment. Complications of chronic hemorrhoids, their early diagnosis and treatment. Actions of a general practitioner in the presence of a patient with chronic hemorrhoids.

<p>Topic 26 Diarrheal-inflammatory syndrome of the colon</p> <p>Diarrheal-inflammatory syndrome of the colon. Nonspecific ulcerative colitis: causes, pathogenesis, pathomorphology, classification, clinic, diagnosis, differential diagnosis, conservative and surgical treatment. New technologies of surgical treatment of diseases of the colon. Complications of NUC, their prevention and treatment. Actions of a general practitioner in the presence of a patient with nonspecific ulcerative colitis.</p>
<p>Topic 27 Diarrheal-inflammatory syndrome of the colon</p> <p>Diverticula and diverticulosis of the colon. Causes, pathogenesis, pathomorphology, classification, clinic, diagnosis, differential diagnosis, conservative and surgical treatment. New technologies of surgical treatment of diseases of the colon. Complications of diverticula of the colon, their prevention and treatment. Actions of a general practitioner if the patient has diverticula in the colon.</p>
<p>Topic 28 Diarrheal-inflammatory syndrome of the colon</p> <p>Crohn's disease: definition, etiology, pathogenesis, classification, clinic, laboratory and instrumental methods of examination of patients, differential diagnosis, treatment tactics. Cancer, polyps and polyps of the colon. Causes, clinical manifestations, laboratory and instrumental methods of examination of patients, differential diagnosis, treatment tactics. Complications, their prevention and treatment. Actions of the general practitioner if the patient suspects or has tumors in the colon.</p>
<p>Topic 29 Performance of practical skills and manipulations</p> <p>Performance of practical skills and manipulations</p>
<p>Topic 30 Curation of patients</p> <p>Work with patients, collection of complaints, anamnesis of illness and life, improvement of methods of physical examination (work in endoscopic and radiological offices and in the office of ultrasound diagnostics). Practical skills of work in a dressing room (care of a wound, drainages, change of bandages, removal of drainages, removal of seams, cultivation of a wound, surgical processing of the purulent center). Work in the operating room (monitoring the progress of the operation, assistance in operations). Writing an academic medical history. Protection of medical history</p>

5. Intended learning outcomes of the course

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

LO1	Collect medical information about the patient and analyze clinical data of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO2	Determine the necessary list of laboratory and instrumental examinations of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum and evaluate their results
LO3	Establish the leading clinical symptoms of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO4	Establish the main clinical syndrome of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum

LO5	Establish the final diagnosis of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO6	Determine the necessary regime of work, rest and the nature of nutrition in the treatment of diseases of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO7	Determine the necessary regime of work, rest and the nature of nutrition in the treatment of diseases of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO8	Determine the principles and nature of treatment of diseases, perform medical manipulations and operations of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO9	Determine the principles and nature of treatment of diseases, perform medical manipulations and operations of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO10	Diagnose emergency conditions, determine the tactics of providing emergency medical care, carry out treatment and evacuation measures for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO11	Diagnose emergency conditions, determine the tactics of providing emergency medical care, carry out treatment and evacuation measures for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO12	Diagnose emergency conditions, determine the tactics of providing emergency medical care, carry out treatment and evacuation measures for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO13	Diagnose emergency conditions, determine the tactics of providing emergency medical care, carry out treatment and evacuation measures for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO14	Оцінювати вплив навколишнього середовища, соціально-економічних та біологічних детермінант на стан здоров'я індивідуума, сім'ї, популяції пацієнтів на гостру хірургічну патологію органів черевної порожнини, заочеревинного простору та прямої кишки
LO15	To carry out an examination of the working capacity of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO16	Maintain medical documentation, including electronic patient forms for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO17	Carry out sanitary-hygienic and preventive measures for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum

LO18	Solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account the aspects of social and ethical responsibility of patients for acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO19	Integrate knowledge and solve complex health problems in broad or multidisciplinary contexts

6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	To detect and identify the leading clinical symptoms and syndromes (according to the List 1); to establish the most probable nosological or syndromic preliminary clinical diagnosis of diseases (according to the List 2) using standard methods, preliminary data of the patient's anamnesis, patient's examination data, and knowledge about a human, his organs and systems.
PO2	To collect information about the patient's general condition; to assess the patient's psychomotor and physical development and the state of organs and systems of the body; to assess information on the diagnosis (according to the List 4) based on laboratory and instrumental findings.
PO3	To order and analyze additional (mandatory and optional) examinations (laboratory, radiological, functional and/or instrumental) (according to the List 4) in order to perform a differential diagnosis of diseases (according to the List 2).
PO4	To establish a final clinical diagnosis at a medical institution under control of a supervising doctor by means of informed decision and logical analysis of the obtained subjective and objective data of clinical and additional examinations, and differential diagnosis, following the relevant ethical and legal norms (according to the List 2).
PO5	To detect the key clinical syndrome or the reason for patient's condition severity (according to the List 3) via informed decision and evaluation of the person's state under any circumstances (at home, in the street, at a healthcare facility), including under emergency and military operation conditions, in the field, with a lack of information and limited time.
PO6	To determine the nature and treatment principles (conservative, operative) in patients with diseases (according to the List 2) at a healthcare facility, at patient's home or during medical evacuation process (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures based on the principles of evidence-based medicine; if needed to go beyond the standard scheme, to substantiate the personalized recommendations under control of a supervising doctor at a medical facility.
PO7	To determine an appropriate work and rest mode in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.

PO8	To determine an appropriate diet in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO11	To determine the appropriate approach in emergency medical care case under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes under limited time conditions based on the principles of evidence-based medicine.
PO12	To provide emergency medical assistance under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes and predetermined approach under limited time conditions based on the principles of evidence-based medicine.
PO13	To organize medical evacuation procedures among the population and the military under emergency and military operation conditions (including in the field), and during the phases of medical evacuation, given the existing system of medical evacuation provision.
PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms.
PO15	To perform procedures related to emergency medical assistance within a limited time and under any circumstances, using standard schemes on the basis of a medical emergency diagnosis (according to the List 3).
PO16	To plan and implement a system of sanitary and preventive measures against the occurrence and spread of diseases among the population.
PO18	To search for the necessary information in the professional literature and databases; to analyze, evaluate, and apply this information. To apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems.
PO19	To assess environmental impact on public health.
PO21	To organize an appropriate level of individual safety (own and of those cared for) in case of typical dangerous situations in the individual field of activity.

7. Soft Skills

SS1	Ability to abstract thinking, analysis and synthesis.
SS2	Ability to learn, master modern knowledge and apply it in practical situations
SS3	Knowledge and understanding of the subject area and understanding of professional activity
SS4	Ability to adapt and act in a new situation.
SS5	Ability to make informed decisions

SS6	Ability to use information and communication technologies
SS7	Ability to work in a team

8. Teaching and learning activities

<p>Topic 1. Control of the residual level of knowledge from I - III courses. Principles of formation of preliminary and clinical diagnosis.</p>
<p>pr.tr.1 "Control of the residual level of knowledge from I - III courses. Principles of formation of preliminary and clinical diagnosis" (full-time course)</p> <p>Control of the residual level of knowledge from I - III courses. Principles of disease recognition and formation of preliminary diagnosis. Methods of curation of surgical patients, features of subjective and objective examination. Principles of formation of preliminary and clinical diagnosis. The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.</p>
<p>Topic 2. Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall</p>
<p>pr.tr.2 "Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall" (full-time course)</p> <p>Anatomical and physiological features of the abdominal wall. Abdominal hernias. Component hernias. Classification of abdominal wall hernias, their surgical anatomy, etiology, pathogenesis, clinic. Diagnosis and differential diagnosis, treatment of patients with hernias of different localizations. Methods and techniques of operations. Prevention. Actions of a general practitioner in the presence of a hernia patient. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching a movie about the main types of hernioplasty) with further discussion. Role games. If possible, work at the patient's bedside. in the profile departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).</p>
<p>Topic 3. Herniated syndrome. Complications of anterior abdominal wall hernias</p>
<p>lect.1 "Abdominal hernias and their complications. Acute appendicitis. Acute peritonitis" (full-time course)</p> <p>Abdominal hernias and their complications. Acute obstruction of the small and large intestines. Acute appendicitis. Acute peritonitis Teaching is conducted in the form of multimedia lectures (in the presence of quarantine - on-line)</p>
<p>pr.tr.3 "Complicated hernias of the anterior abdominal wall" (full-time course)</p> <p>Complications of hernias (coprostasis, strangulation, inflammation): definition, causes, mechanism of development. Clinic, diagnostics and differential diagnosis. Features of surgical interventions. Tactics of the doctor at independent management of the strangulation hernia. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies with examples of hernia complications) with further discussion. Role games. If possible, work at the patient's bedside. in the profile departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).</p>
<p>Topic 4. Acute inflammatory abdominal syndrome</p>

pr.tr.4 "Acute appendicitis. Etiology, pathogenesis, classification, clinical manifestations" (full-time course)

Acute appendicitis. Etiology, pathogenesis, classification, clinical manifestations. Features of the course of acute appendicitis in children, pregnant women and the elderly. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies on this pathology) with further discussion. In addition, the study of this topic provides for the acquisition of practical skills of palpation, percussion and auscultation at the patient's bedside in the relevant departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 5. Acute inflammatory abdominal syndrome

pr.tr.5 "Acute appendicitis: diagnosis, differential diagnosis. Treatment of appendicitis" (full-time course)

Acute appendicitis: diagnosis, differential diagnosis. Treatment of appendicitis: tactics, types and techniques of appendectomy. Features of the postoperative period. The study of this topic involves theoretical work in the classroom, solving situational problems, work in the simulation center (working out the technique of laparoscopic appendectomy), the use of virtual simulation (watching movies on methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 6. Acute inflammatory abdominal syndrome

pr.tr.6 "Complications of acute appendicitis and appendectomy" (full-time course)

Complications of acute appendicitis and appendectomy: appendicular infiltrate, appendicular abscess, pyelonephritis. Etiology, pathogenesis, pathomorphology, clinic, diagnosis, differential diagnosis. Therapeutic tactics. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies on methods of correction of complications) with further discussion. In addition, the study of this topic involves work at the patient's bedside in the relevant departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Interpretation of the results of laboratory and instrumental methods of examination, preparation of a treatment plan

Topic 7. Acute inflammatory abdominal syndrome

lect.2 "Acute cholecystitis. Acute and chronic bleeding into the gastrointestinal tract" (full-time course)

Acute cholecystitis. Acute pancreatitis. Acute and chronic bleeding into the gastrointestinal tract Teaching is carried out in the form of multimedia lectures (in the presence of quarantine - in the on-line mode)

pr.tr.7 "Etiology, pathogenesis and classification of acute cholecystitis. Clinic" (full-time course)

Anatomical and physiological features of the extrahepatic bile ducts. Etiology, pathogenesis and classification of acute cholecystitis. Clinic, peculiarity of the clinical course in the elderly and with concomitant pathology. The use of virtual simulation (watching movies on the methods of determining the clinical symptoms of acute cholecystitis) with further discussion.

Topic 8. Acute inflammatory abdominal syndrome

pr.tr.8 "Acute cholecystitis: diagnosis, differential diagnosis, treatment tactics" (full-time course)
Acute cholecystitis: diagnosis, differential diagnosis, treatment tactics. Conservative and surgical treatment, types of operations, their technique. The role of minimally invasive methods of diagnosis and treatment. The study of this topic involves theoretical work in the classroom, solving situational problems, work in the simulation center (working out the technique of laparoscopic cholecystectomy), the use of virtual simulation (watching movies on methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 9. Acute inflammatory abdominal syndrome

pr.tr.9 "Complications of acute cholecystitis and cholecystectomy" (full-time course)
Complications of acute cholecystitis and cholecystectomy. Intraoperative injuries of the extrahepatic bile ducts, vessels, abdominal organs. Clinical symptoms, diagnosis and surgical tactics. Treatment. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies with methods of functional and instrumental study of the biliary system (cholangiography, ultrasound, CT) with further discussion. cooperation between the medical institution and the university), drawing up a treatment plan for the underlying disease

Topic 10. Acute inflammatory abdominal syndrome

pr.tr.10 "Acute pancreatitis. Etiology, pathogenesis, classification, clinic" (full-time course)
Anatomical and physiological features of the pancreas. Acute pancreatitis. Etiology, pathogenesis, classification, clinic. When studying this topic, the use of virtual simulation (watching movies on the methods of determining the clinical symptoms of acute pancreatitis) with further discussion. Also involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside.

Topic 11. Acute inflammatory abdominal syndrome

pr.tr.11 "Diagnosis of acute pancreatitis. Treatment tactics" (full-time course)
Diagnosis of acute pancreatitis: laboratory and instrumental methods. Differential diagnosis of acute pancreatitis. Therapeutic tactics, conservative and surgical treatment, types of operations, their technique. The role of minimally invasive methods of diagnosis and treatment. The study of this topic involves theoretical work in the classroom, solving situational problems, work in a simulation center (testing laparocentesis and laparoscopy), the use of virtual simulation (watching movies on methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 12. Acute inflammatory abdominal syndrome

pr.tr.12 "Complications of acute pancreatitis" (full-time course)

Complications of acute pancreatitis (pancreatic necrosis, gland abscess, peritonitis). Clinic, diagnosis, surgical tactics and treatment. Technique of surgical interventions, the role of minimally invasive methods. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies with methods of access to the gland, methods of drainage of cellular spaces)

Topic 13. Gastrointestinal bleeding

pr.tr.13 "Gastrointestinal bleeding as a complication of diseases of the stomach and duodenum" (full-time course)

Gastrointestinal bleeding as a complication of diseases of the stomach and duodenum. Causes, pathogenesis, classification, clinic. Laboratory and instrumental methods of diagnosis, endoscopic classification. Differential diagnosis of SCC. The study of this topic involves theoretical work in the classroom, solving situational problems, work in a simulation center (conducting on a mannequin EGDIS, gastric probing), the use of virtual simulation (watching movies on methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 14. Gastrointestinal bleeding

pr.tr.14 "Therapeutic tactics for bleeding from the upper gastrointestinal tract" (full-time course)

Therapeutic tactics for bleeding from the upper gastrointestinal tract: prehospital care, inpatient treatment, indications for the choice of conservative treatment, endoscopic methods of hemostasis, surgery. Methods of surgical treatment, their technique. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies with endoscopic hemostasis), followed by discussion. In addition, the study of this system involves role-playing games in the preparation of a plan for the treatment of the underlying disease and the provision of emergency care

Topic 15. Gastrointestinal bleeding

pr.tr.15 "Acute and chronic bleeding from the lower gastrointestinal tract" (full-time course)

Acute and chronic bleeding from the lower gastrointestinal tract: cancer of the small and large intestine and hemorrhoids are complicated by bleeding. Causes, pathogenesis, classification, clinic, diagnosis. Differential diagnosis of bleeding from the upper and lower gastrointestinal tract. Therapeutic tactics, pre-hospital care, inpatient treatment. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies demonstrating the clinical manifestations of major diseases and syndromes) with further discussion. Complaint of the examination and treatment plan.

Topic 16. Intestinal obstruction

pr.tr.16 "Acute mechanical obstruction of the intestines" (full-time course)

Acute mechanical intestinal obstruction. Etiology and pathogenesis. Classification. Clinical picture according to stage. The concept of adhesive peritoneal disease, acute adhesive intestinal obstruction: features of pathogenesis and clinic. Early clinical signs of strangulation intestinal obstruction. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies demonstrating the clinical manifestations of major diseases and syndromes) with further discussion. In addition, the study of this topic includes role-playing games, improving mastery of palpation, percussion and auscultation at work at the patient's bedside in the profile department (in the absence of quarantine restrictions), drawing up a plan with further interpretation of ultrasound, radiography and treatment.

Topic 17. Intestinal obstruction

pr.tr.17 "Modern medical and diagnostic tactics for mechanical intestinal obstruction" (full-time course)

Modern medical and diagnostic tactics for GNK. Features of examination of the patient, methods. Differential diagnosis. Treatment of patients with GNC: preoperative preparation, principles of surgical interventions, intubation of the small and large intestine: types, technique. Features of the postoperative period. The study of this topic involves theoretical work in the classroom, solving situational problems, work in the simulation center (viewing radiographs), the use of virtual simulation (watching movies on the methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 18. Intestinal obstruction

pr.tr.18 "Acute dynamic intestinal obstruction" (full-time course)

Acute dynamic intestinal obstruction. Hirschsprung-Favolli disease, toxic poisoning, inflammatory diseases of the abdominal cavity as a cause of DIO, pathogenesis. Classification. Clinical picture according to the cause and stage. Diagnosis, differential diagnosis. Therapeutic tactics for dynamic IO, principles of surgical interventions, justification of different types of intestinal decompression. Features of conservative therapy. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies demonstrating the clinical manifestations of major diseases and syndromes) with further discussion. Acquaintance with physiotherapeutic methods of treatment

Topic 19. Perforation of the hollow organ, peritonitis

pr.tr.19 "Acute peritonitis. Etiology, pathogenesis, classification. Clinic" (full-time course)

Anatomical and physiological features of the peritoneum. Acute peritonitis. Etiology, pathogenesis, classification. Clinic of local and widespread acute peritonitis. Diagnosis, differential diagnosis. The use of virtual simulation (watching movies on the methods of determining the clinical symptoms of acute peritonitis) with further discussion. In addition, the study of this topic includes role-playing games, improving the skills of palpation, percussion and auscultation when working at the patient's bedside in the profile department (in the absence of quarantine restrictions), drawing up a survey plan with further interpretation of ultrasound and radiography.

Topic 20. Perforation of the hollow organ, peritonitis

pr.tr.20 "Treatment tactics for acute peritonitis" (full-time course)

Treatment tactics for acute local and widespread peritonitis. Features of preoperative preparation: correction of water-electrolyte disorders and protein metabolism, detoxification. Nutritional therapy: parenteral and early enteral. Surgical treatment, method of programmed relaparotomy, rehabilitation and laparostomy. Indications and methods of intubation of the small intestine. Work in the simulation center (mastering the techniques of open, semi-open and closed postoperative management of patients with peritonitis, mastering the techniques of laparostomy and suturing the middle laparotomy wound)

Topic 21. Perforation of the hollow organ, peritonitis

pr.tr.21 "Perforated gastroduodenal ulcer. Etiology, pathogenesis, classification. Clinic" (full-time course)

Perforated gastroduodenal ulcer. Etiology, pathogenesis, classification. Clinic of typical and atypical perforated gastroduodenal ulcer. Diagnosis and differential diagnosis. The study of this topic involves theoretical work in the classroom, solving situational problems, work in the simulation center (work with scales of peritoneal severity, performing laparocentesis and laparoscopy on models), the use of virtual simulation (watching movies on methods of instrumental and functional methods of examination) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 22. Perforation of the hollow organ, peritonitis

pr.tr.22 "Treatment tactics for perforated gastroduodenal ulcer" (full-time course)

Therapeutic tactics for perforated gastroduodenal ulcer. Preparing the patient for surgery. Methods and techniques of performing surgical interventions. Conservative therapy in the postoperative period. The study of this topic involves theoretical work in the classroom. In addition, the study of this topic provides role-playing games, in the absence of quarantine restrictions, work at the patient's bedside in the relevant departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Drawing up a treatment plan for the patient.

Topic 23. Acute pain syndrome in the rectum and perianal area

lect.3 "Diseases of the colon and rectum and their complications" (full-time course)

Diseases of the colon and rectum and their complications. Urgent diseases of the anal canal, perineum and perianal area. Teaching is conducted in the form of multimedia lectures (in the presence of quarantine - on-line)

pr.tr.23 "Acute hemorrhoids and acute anal fissure. Inflammation of epithelial coccygeal passages and coccygeal cysts" (full-time course)

Acute rectal pain syndrome. Acute hemorrhoids and acute anal fissure: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, possible complications, prevention. Actions of a general practitioner in the presence of an acute hemorrhoid and anal fissure. Inflammation of the epithelial coccygeal passages and coccygeal cysts: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, possible complications. Actions of the general practitioner in the presence of the patient of volume formations and pain in the perianal area. The study of this topic involves theoretical work in the classroom, role-playing games. Work in the simulation center (on a mannequin for rectal examination) and profile departments of the medical institution (conducting and interpretation of the obtained data of anoscopy, rectoscopy, ultrasound examination (according to the agreement on cooperation between the medical institution and the university))

Topic 24. Acute pain syndrome in the rectum and perianal area

pr.tr.24 "Acute paraproctitis" (full-time course)

Acute pain syndrome in the perianal area. Acute paraproctitis: causes, pathogenesis, pathomorphology, classification, clinic, diagnosis. Therapeutic tactics, methods and techniques for the detection of purulent processes, possible complications, postoperative treatment. Prevention of paraproctitis. The study of this topic involves theoretical work in the classroom, role-playing games. Work in the simulation center (on a mannequin for rectal examination) and profile departments of the medical institution (conducting and interpretation of the obtained data of anoscopy, rectoscopy, ultrasound examination (according to the agreement on cooperation between the medical institution and the university))

Topic 25. Rectal prolapse syndrome

pr.tr.25 "Prolapse of the rectum. Chronic hemorrhoids" (full-time course)

Acute rectal pain syndrome. Acute hemorrhoids and acute anal fissure: causes, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, possible complications, prevention. Actions of a general practitioner in the presence of an acute hemorrhoid and anal fissure. The study of this topic involves theoretical work in the classroom, role-playing games. Work in the simulation center (on a mannequin for rectal examination) and profile departments of the medical institution (conducting and interpretation of the obtained data of anoscopy, rectoscopy, ultrasound examination (according to the agreement on cooperation between the medical institution and the university))

Topic 26. Diarrheal-inflammatory syndrome of the colon

pr.tr.26 "Nonspecific ulcerative colitis" (full-time course)

Diarrheal-inflammatory syndrome of the colon. Nonspecific ulcerative colitis: causes, pathogenesis, pathomorphology, classification, clinic, diagnosis, differential diagnosis, conservative and surgical treatment. New technologies of surgical treatment of diseases of the colon. Complications of NEC, their prevention and treatment. Actions of a general practitioner in the presence of a patient with nonspecific ulcerative colitis. The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.

Topic 27. Diarrheal-inflammatory syndrome of the colon

pr.tr.27 "Diverticula and diverticulosis of the colon" (full-time course)

Diverticula and diverticulosis of the colon. Causes, pathogenesis, pathomorphology, classification, clinic, diagnosis, differential diagnosis, conservative and surgical treatment. New technologies of surgical treatment of diseases of the colon. Complications of diverticula of the colon, their prevention and treatment. Actions of a general practitioner if the patient has diverticula in the colon. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies demonstrating the clinical manifestations of major diseases and syndromes) with further discussion. In addition, the study of this topic provides role-playing games, improving the skills of palpation, percussion and auscultation at work at the patient's bedside in the profile department (in the absence of quarantine restrictions),

Topic 28. Diarrheal-inflammatory syndrome of the colon

pr.tr.28 "Crohn's disease" (full-time course)

Crohn's disease: definition, etiology, pathogenesis, classification, clinic, laboratory and instrumental methods of examination of patients, differential diagnosis, treatment tactics. Methods of conservative and surgical treatment of patients, prevention of complications. The study of this topic involves theoretical work in the classroom, the use of virtual simulation (watching movies demonstrating the clinical manifestations of major diseases and syndromes) with further discussion. In addition, the study of this topic includes role-playing games, improving the skills of palpation, percussion and auscultation at work at the patient's bedside in the specialized department (in the absence of quarantine restrictions), drawing up a plan of examination and treatment taking into account complications. Cancer, polyps and polyps of the colon. Causes, clinical manifestations, laboratory and instrumental methods of examination of patients, differential diagnosis, treatment tactics. Complications, their prevention and treatment. Actions of the general practitioner if the patient suspects or has tumors in the colon. The study of this topic involves theoretical work in the classroom, interpretation of laboratory data, endoscopic examination, X-ray and ultrasound examination of the colon in the departments of the medical institution (according to the cooperation agreement between the medical institution and the university).

Topic 29. Performance of practical skills and manipulations

pr.tr.29 "Performance of practical skills and manipulations" (full-time course)

Performance of practical skills and manipulations

Topic 30. Curation of patients

pr.tr.30 "Curation of patients" (full-time course)

Curation of patients to write a medical history. Protection of medical history Educational medical history, based on the clinical supervision of patients with the design of examination data and additional research methods, in order to establish and justify the diagnosis and appointment of treatment. Protection of medical history

9. Teaching methods

9.1 Teaching methods

Course involves learning through:

TM1	Lecture teaching
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TM2	Case-based learning
TM3	Team Based Learning
TM4	Research Based Learning
TM5	Practical training
TM6	Self-study
TM7	Electronic learning

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which not only promote the development of professional skills, but also stimulate creative and scientific activities and are aimed at training practice-oriented professionals. Practical classes allow students to plan a scheme of examination of the patient and interpret the results of research, diagnose and provide emergency care in emergencies. Test tasks allow you to test your knowledge and focus on key issues. Execution of situational tasks will allow to analyze tactics of inspection of patients, to make the treatment plan, to form risk groups. Practicing practical skills allows you to establish the level of knowledge and focus on key issues. Self-study will help prepare for practical classes, as well as work in small groups to prepare presentations that will be presented to other groups

GC 1. Ability to abstract thinking, analysis, and synthesis. GC 2. Ability to learn, master modern knowledge, and apply the Knowledge in practice. GC 3. Knowledge and understanding of the subject area and professional activity comprehension. GC 4. Ability to adapt and act in a new situation. GC 5. Ability to make reasoned decisions; teamwork ability; interpersonal skills. GC 6. Ability to communicate in a foreign language. GC 7. Ability to use information and communication technologies. GC 8. Determination and persistence on the tasks and commitments undertaken.

9.2 Learning activities

LA1	Solving situational problems
LA2	Writing and defending a medical history
LA3	Watching educational films
LA4	Individual research project (student research work, article, theses, etc.)
LA5	Analysis of clinical cases
LA6	Preparation for practical classes
LA7	E-learning in systems (Google Meet, Zoom and YouTube channel format)
LA8	Interpretation of laboratory (clinical analysis of blood, urine, biochemical analysis of blood, immunological tests, etc.) and instrumental (ECG, echocardiography, EFGDS, ultrasound, CT, radiography, spirometry, etc.) methods of examination
LA9	Practice of practical skills in the simulation center

10. Methods and criteria for assessment

10.1. Assessment criteria

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

10.2 Formative assessment

	Description	Deadline, weeks	Feedback
FA1 Peer assessment	Partnership interaction aimed at improving the results of educational activities by comparing one's own current level of success with previous indicators. Provides an opportunity to analyze one's own educational activities	During the entire period of studying the discipline	Adjustment of approaches to learning together with students, taking into account the results of the assessment
FA2 Counseling of the teacher during the writing of the medical history	Writing a medical history involves demonstrating the ability to work with a patient, consolidating the practical skills of physical examination of a patient, evaluating and analyzing medical documentation, establishing a clinical diagnosis with elements of differential diagnosis, prescribing treatment.	Writing during the cycle, defense - in accordance with the calendar and thematic plan	Counseling of the teacher during the writing of the medical history with oral comments. The applicant receives a grade for writing a medical history (5 points maximum) and defense (5 points maximum)
FA3 Consulting the teacher during the preparation of an individual research project (speech at a conference, competition of scientific works	An important factor in the formation of professional qualities of future specialists is the research work of students. Involvement of the latter in research activities contributes to the formation of their scientific worldview, industriousness, work capacity, initiative, etc.	During the entire period of studying the discipline	Teacher's oral comments. The student is given additional incentive points (from 5 to 10), depending on the type of research project

<p>FA4 Instructions of the teacher in the process of performing practical tasks</p>	<p>The guidelines reveal the methods of pedagogical control over the professional activities of applicants. Efficiency is determined by compliance with all stages of practical tasks. The effectiveness of the formation of the necessary practical skills and abilities depends on the level of formation of practical competence.</p>	<p>During the entire period of studying the discipline</p>	<p>Counseling of students in working with a standardized patient, direct and indirect observation of the work of applicants "at the patient's bedside" with further determination of the level of practical training</p>
<p>FA5 Survey and teacher's oral comments based on his results</p>	<p>It provides an opportunity to identify the state of educational experience acquired by students in accordance with the set goals, to find out the prerequisites for the state of formation of the obtained results, the causes of difficulties, to adjust the learning process, to track the dynamics of the formation of learning results and to forecast their development.</p>	<p>During the entire period of studying the discipline</p>	<p>According to the obtained data on the results of training, based on their analysis, it is proposed to determine the evaluation as an indicator of the achievements of the educational activities of the applicants</p>
<p>FA6 Solving clinical cases</p>	<p>The case method makes it possible to reveal and form the qualities and abilities of medical students necessary for further work, forms clinical thinking, analytical abilities, independence in decision-making, communication, skills for working with a sufficiently large amount of information.</p>	<p>During the entire period of studying the discipline</p>	<p>Assessment of the student's ability to think clinically, justify their decisions, clearly express their opinions, determine the level of theoretical training, which is reflected in the corresponding assessment</p>

FA7 The task of assessing the level of theoretical training	Assessment of acquired theoretical knowledge on the subject of the discipline. It is conducted at each practical session in accordance with the specific goals of each topic based on a comprehensive assessment of the student's activity, which includes monitoring the level of theoretical training, performing independent work according to the thematic plan	During the entire period of studying the discipline	Feedback is aimed at supporting students' independent work, identifying shortcomings and assessing the level of acquired theoretical knowledge
FA8 Practical skills test	Working out the interpretation of the results of additional research methods	During the entire period of study.	According to the obtained data on the results of training, based on their analysis, it is proposed to determine the evaluation as an indicator of the achievements of the educational activities of the applicants
FA9 Tests (automated tests) to control the educational achievements of applicants	A method of effective verification of the level of assimilation of knowledge, abilities and skills from each subject of an educational discipline. Testing allows you to check the assimilation of educational material from each subject.	During the entire period of studying the discipline	the student must provide 60% of the correct answers, which is an admission to the practical part of the lesson

10.3 Summative assessment

	Description	Deadline, weeks	Feedback
SA1 Final control: exam	Passing a practical-oriented exam. Candidates who have successfully mastered the material of the discipline, passed practical skills and final computer testing, and defended their medical history are allowed to take the exam.	According to the schedule	The applicant can get 80 points for the exam. The minimum number of points a student must receive is 48 points

SA2 Assessment of medical history writing and defense	Writing a medical history involves demonstrating the ability to work with a patient, consolidating the practical skills of physical examination of a patient, evaluating and analyzing medical documentation, establishing a clinical diagnosis with elements of differential diagnosis, prescribing treatment.	Last class	A student can get a maximum of 10 points. 5 points are awarded for writing, 5 points for defense. The minimum number of points for a successful defense is 6 points
SA3 Tasks for evaluating the level of theoretical training	Solving test tasks that include questions for controlling the level of theoretical training, performing independent work according to the thematic plan of the content module	The last practical lesson of the substantive module	The student must provide 60% of the correct answers
SA4 Current evaluation of the level of theoretical and practical training	Includes oral interview, interpretation of laboratory and instrumental methods of examination, objective structured clinical examination of the patient, solution of clinical individual and group case studies	During the entire period of studying the discipline	It is held at every lesson
SA5 Final testing	Testing allows you to check the results of training during the cycle and determine the level of knowledge at the end of the discipline.	Final computer testing at the end of the course	It is an admission to take the exam
SA6 Assessment of performance of practical skills and manipulations	Comprehensive practice of the practical component of academic programs in a safe simulation environment for students.	At the last discipline lesson, the student must successfully complete a list of practical skills	It is an admission to take the exam

Form of assessment:

	Points	Minimum points	Можливість перескладання з метою підвищення оцінки
8 semester	200 scores		
SA1. Final control: exam	80		

	Answers to theoretical questions and questions of practical training	80	48	No
SA2. Assessment of medical history writing and defense		10		
	Answers to questions about the causes and provoking factors of the disease, modern methods of diagnosis and treatment	10	6	No
SA3. Tasks for evaluating the level of theoretical training		20		
	Test questions for monitoring the level of theoretical training, performing independent work according to the thematic plan of the content module (2x10	20	12	No
SA4. Current evaluation of the level of theoretical and practical training		60		
	Oral interview, interpretation of laboratory and instrumental methods of examination, objective structured clinical examination of the patient, solution of clinical individual and group cases, current testing (30x2	60	36	No
SA5. Final testing		10		
	Computer testing according to the subject of the discipline	10	6	No
SA6. Assessment of performance of practical skills and manipulations		20		
	Demonstration of patient examination skills, interpretation of additional examination data, performing manipulations	20	12	No

When mastering the materials of the discipline, the applicant is awarded a maximum of 5 points for each practical session (the grade is given in the traditional 4-point grading system). At the end of the academic year, the student's arithmetic average is calculated. The maximum number of points that the applicant can receive in practical classes during the academic year is 60. The number of points of the applicant is calculated according to the formula: multiply 60 by the arithmetic average and divide by 5. The following points are assigned for writing a medical history: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. Medical history protection: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. In general, the applicant can receive a maximum of 10 points for the medical history, the minimum required point is 6. For diagnostic testing, the student receives a maximum of 10 points. The minimum number of points that the winner must receive is 6 points. A mandatory condition for admission to the exam is the successful completion of the list of practical skills in the last lesson of the discipline. The maximum number of points that the winner can receive is 20 points, the minimum is 12 points. The maximum number of points for the applicant's current educational activity is 120. The applicant is admitted to the exam provided that he meets the requirements of the educational program and if he has scored at least 72 points for the current educational activity. The practice-oriented exam is held according to the schedule during the session. Examination tickets contain 2 theoretical questions on various topics and cover all sections

of the academic discipline (15 points each), 1 clinical problem (20 points), 5 questions on the definition of clinical symptoms (5 points each) and interpretation of radiographs (5 points). The exam is credited to the candidate if he scored at least 48 points out of 80. Incentive points are added to the grade in the discipline for the implementation of an individual research project (defense of a student thesis 10 points, speech at a conference, poster presentation at a conference, theses of reports - 5 points). The total score for the discipline cannot exceed 200 points.

11. Learning resources


11.1 Material and technical support

MTS1	Library funds, archive of radiographs, spiograms, electrocardiograms, computer tomograms, results of laboratory methods of inspection
MTS2	Information and communication systems
MTS3	Computers, computer systems and networks
MTS4	Simulation center
MTS5	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smart boards, etc.)
MTS6	Software (to support distance learning, online surveys, virtual laboratories, virtual patients, to create computer graphics, modeling, etc.)
MTS7	"Clinical Hospital №5"
MTS8	Medical equipment (apparatus Ultrasound diagnostics, electrocardiograph, fibrogastroduodenoscope, tonometer, phonendoscope, laparoscope, etc.)

11.2 Information and methodical support

Essential Reading	
1	Essentials of visceral surgery. For residents and fellows / F. Billmann, T. Keck –Springer Berlin, Heidelberg – 2023.- 371 p.
2	Colon and rectal surgery. Abdominal operations / S. D. Wexner, J. W. Fleshman - Wolters Kluwer 2019.- 2d ed.- 2019.- 1167 p.
3	Resources for optimal care of emergency surgery / M. Sugrue at all – World society of emergency surgery and donegal clinical and research academy 2020.- 2020.- 158 p.
4	Хірургія : підручник / Я. С. Березницький, О. В. Білов, Л. С. Білянський та ін.] ; за ред. Я. С. Березницького. – Вінниця : Нова Книга, 2020. – 528 с.
5	Infections in surgery. Prevention and management / M. Sartelli, R. Coimbra, L. Pagani, K. Rasa - Springer Nature Switzerland AG 2021.- 2021.- 278 p.
Supplemental Reading	
1	General Surgery [Текст] = Загальна хірургія : textbook / V. P. Andriushenko, Ya. S. Bereznitsky, A. V. Verba etc. — 2th ed. — Vinnytsia : Nova Knyha, 2020. — 328 p. + Гриф МОЗ.

2	Gastrointestinal surgery. Management of complex perioperative complications/ T. M. Pawlik, S. K. Maithel, N. B. Merchant - Springer Science+Business Media New York 2015.- 1st ed.-2015.- 484 p.
3	Korenkov, O. V. Methodical instructions for practical lessons on the topic "Clinical Anatomy and Operative Surgery of the Abdomen and Pelvis" on the discipline "Clinical Anatomy and Operative Surgery" [Текст] : for students of speciality 222 "Medicine" full-time form of education / O. V. Korenkov, G. F. Tkach. — Sumy : Sumy State University, 2020. — 149 p.
4	Мелеховець, Ю. В. Методичні вказівки для самостійної роботи студентів при підготовці до практичних занять з курсу "Хірургія". Модуль 1. "Невідкладні хірургічні захворювання органів черевної порожнини" [Електронний ресурс] : для магістрів спец. 222 "Медицина" денної форми навчання / Ю. В. Мелеховець. — Суми : СумДУ, 2022. — 106 с.
5	Кононенко, М.Г. Перитоніт [Текст]: матеріали до лекції для студ. і лікарів (хірургів, анестезіологів та ін.) спец. 222 "Медицина" денної форми навчання / М.Г. Кононенко. - Суми: СумДУ, 2017. - 116 с.
6	Primary Surgery [Volume One: Non-Trauma]/ Michael Cotton at all. - 2d ed.-2016.- 881 p.
7	Кобилецький, С. М. Методичні рекомендації на тему "Особливості діагностики та лікування гострого панкреатиту" з дисципліни "Хірургія" [Електронний ресурс] : для студ. спец. 222 "Медицина" та лікарів-хірургів / С. М. Кобилецький. — Суми : СумДУ, 2022. — 80 с.
Web-based and electronic resources	
1	http://www.mayo.edu/research (Клініка Мейо, США).
2	http://videlectures.net/Top/Medicine/ (Колекція високоякісних медичних відеолекцій світу).
3	https://surgical-school.com.ua/index.php/journal - періодичний журнал «Харківська хірургічна школа»
4	http://surgukraine.com.ua/ - періодичний журнал «Хірургія України»
5	https://hirurgiya.com.ua/index.php/journal - періодичний журнал «Клінічна хірургія»
6	https://ojs.tdmu.edu.ua/index.php/surgery - періодичний журнал «Шпитальна хірургія»
7	http://www.nbuv.gov.ua/ - Національна бібліотека України імені В. І. Вернадського
8	https://essuir.sumdu.edu.ua/ - Electronic Sumy State University Institutional Repository

	<p style="text-align: center;">UNIVERSITY POLICIES FOR THE COURSE «Surgery»</p> <p>Higher education level The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle Major: Educational programme 222 Medicine: Medicine Year of study 2023 Semester 8 semester Mode of study full-time course Language of instruction English</p>
Teacher(s)	Danylenko Ihor Anatoliiovych, Duzhyi Ihor Dmytrovych
Contact	Duzhyi Ihor Dmytrovich i.duzhyi@med.sumdu.edu.ua Danylenko Ihor Anatoliiovych i.danilenko@med.sumdu.edu.ua
Time and room for giving consultations	Practices and consultations are held every Wednesday from 14-00 to 16-00 according to the schedule on the basis of the department ("Sumy Clinical Hospital №5").
Links to online educational platforms	https://elearning.sumdu.edu.ua/free_content/lectured:fffb74b06d285f6dbad33f6c602f2c7ad62799cd/20210929085008//index.html https://elearning.sumdu.edu.ua/free_content/lectured:cf6f0a09ab4ba4701da457ca73d22d11cf007541/20150301082805//91414/index.html https://elearning.sumdu.edu.ua/free_content/lectured:e60d3715cd55360b6e91852336ccf92ac1e9d96a/20200418152856//index.html
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/syllabus/830a12021ba7534aa5cb87f174a96a8f3231819
Channels for maintaining contact with the group for receiving and working on materials	personal account, MIX SSU, group in Viber

POLICIES

Academic integrity policy

Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.

Політика щодо використання інструментів штучного інтелекту при виконанні завдань навчальної дисципліни

Політика використання інструментів штучного інтелекту (ChatGPT, Tome тощо) оголошується

викладачем на початку курсу.

It is forbidden to use artificial intelligence tools for the preparation of works defined by the syllabus and regulations of the academic discipline.

Несанкціоноване використання інструментів штучного інтелекту є порушенням академічної доброчесності.

Політика щодо використання матеріалів з джерел відкритого доступу

When students use materials from open access sources for the preparation of works defined by the syllabus and regulations of the academic discipline, they must comply with the terms of the Creative Commons licenses for the use of copyright objects.

Attendance policy

The student must attend all practical classes and at least 60% of lectures. Students who have completed all missed practical classes and 60% of lectures by the deadline are admitted to exam. Lectures are conducted by writing an abstract on the topic of the missed lecture (handwritten version, not less than 10 pages) and defending the abstract to the teacher who gave the lecture, or the head of the department.

Deadlines and course retake policy

In case of unsatisfactory result, the student has the right to retake the semester exam twice - the first time to the examiner appointed by the head of the department, the second - to the commission created by the dean's office. The re-examination is carried out according to a separate schedule, which is approved by the dean's office. Students who fail the exam without good reason are considered to have received an unsatisfactory grade. The student's refusal to perform the examination task is certified as an unsatisfactory answer. The student has the right to receive an explanation of the grade obtained.

Assessment appeals policy

The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.

Assessment criteria

Assessment policy

When mastering the materials of the discipline, the applicant is awarded a maximum of 5 points for each practical session (the grade is given in the traditional 4-point grading system). At the end of the academic year, the student's arithmetic average is calculated. The maximum number of points that the applicant can receive in practical classes during the academic year is 60. The number of points of the applicant is calculated according to the formula: multiply 60 by the arithmetic average and divide by 5. The following points are assigned for writing a medical history: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. Medical history protection: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. In general, the applicant can receive a maximum of 10 points for the medical history, the minimum required point is 6. For diagnostic testing, the student receives a maximum of 10 points. The minimum number of points that the winner must receive is 6 points. A mandatory condition for admission to the exam is the successful completion of the list of practical skills in the last lesson of the discipline. The maximum number of points that the winner can receive is 20 points, the minimum is 12 points. The maximum number of points for the applicant's current educational activity is 120. The applicant is admitted to the exam provided that he meets the requirements of the educational program and if he has scored at least 72 points for the current educational activity. The practice-oriented exam is held according to the schedule during the session. Examination tickets contain 2 theoretical questions on various topics and cover all sections of the academic discipline (15 points each), 1 clinical problem (20 points), 5 questions on the definition of clinical symptoms (5 points each) and interpretation of radiographs (5 points). The exam is credited to the candidate if he scored at least 48 points out of 80. Incentive points are added to the grade in the d

Alignment of learning outcomes with teaching and learning activities and assessment

For 222 Medicine:

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO2	LO1	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA2, LA8, LA6	TM1, TM5, TM6	MTS5, MTS6, MTS7, MTS8	SA2, SA1
PO3	LO2	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA4, LA2, LA8	TM2, TM4, TM5	MTS1, MTS7, MTS8	SA3, SA4, SA2, SA1
PO1	LO3	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA1, LA5, LA9, LA2, LA8	TM1, TM2, TM3, TM5	MTS2, MTS3, MTS7	SA3, SA4, SA6, SA2, SA1
PO5	LO4	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA9, LA2, LA8	TM2, TM3, TM5	MTS3, MTS7	SA3, SA4, SA6, SA2, SA1
PO4	LO5	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA9, LA2, LA8, LA6	TM2, TM3, TM5, TM6	MTS2, MTS3, MTS6, MTS7	SA3, SA4, SA6, SA2, SA1
PO7	LO6	lect.1-lect.3, pr.tr.1-pr.tr.30	LA2, LA8, LA6	TM5, TM6	MTS4, MTS5, MTS6, MTS7	SA2, SA1
PO8	LO7	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA9, LA2, LA8	TM2, TM3, TM5	MTS2, MTS4, MTS7	SA3, SA4, SA6, SA2, SA1
PO6	LO8	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA4, LA6, LA7	TM2, TM4, TM6, TM7	MTS2, MTS4, MTS6, MTS7	SA3, SA4, SA5, SA1
PO14	LO9	lect.1-lect.3, pr.tr.1-pr.tr.30	LA9, LA6, LA7	TM3, TM6, TM7	MTS5, MTS7	SA6, SA5, SA1
PO11	LO10	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA9, LA6, LA7	TM2, TM3, TM6, TM7	MTS4, MTS5, MTS6, MTS7	SA3, SA4, SA6, SA5, SA1
PO13	LO11	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA1, LA5, LA2, LA8	TM1, TM2, TM5	MTS2, MTS3, MTS7	SA3, SA4, SA2, SA1
PO15	LO12	pr.tr.1-pr.tr.30	LA9, LA4, LA7	TM3, TM4, TM7	MTS2, MTS3	SA6, SA5, SA1

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO21	LO13	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA2, LA8, LA6, LA7	TM1, TM5, TM6, TM7	MTS1, MTS2, MTS7, MTS8	SA2, SA5, SA1
PO19	LO14	lect.1-lect.3, pr.tr.1-pr.tr.30	LA2, LA8, LA6	TM5, TM6	MTS2, MTS3	SA2, SA1
PO6	LO15	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA1, LA5, LA2, LA8	TM1, TM2, TM5	MTS2, MTS3, MTS7	SA3, SA4, SA2, SA1
PO18	LO16	pr.tr.1-pr.tr.30	LA9, LA2, LA8	TM3, TM5	MTS2, MTS3	SA6, SA2, SA1
PO16	LO17	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA2, LA8	TM2, TM5	MTS2, MTS3	SA3, SA4, SA2, SA1
PO12	LO18	lect.1-lect.3, pr.tr.1-pr.tr.30	LA1, LA5, LA6	TM2, TM6	MTS2, MTS4, MTS7	SA3, SA4, SA1
PO11	LO19	lect.1-lect.3, pr.tr.1-pr.tr.30	LA3, LA2, LA8, LA6, LA7	TM1, TM5, TM6, TM7	MTS2, MTS3	SA2, SA5, SA1