

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 HHMI

Chairman of the Quality Council HHMI
Petrashenko Viktoriia Oleksandrivna

DATA ON APPROVAL

Author

Danylenko Ihor Anatoliiovych

Considered and approved at the meeting of the work group of Study programme Медицина	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 фізичної реабілітації	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 Anatoliiovych
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
Duration	one semester
Workload	3 ECTS, 90 hours. For full-time course 66 hours are working hours with the lecturer (6 hours of lectures, 60 hours of seminars), 24 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 a preliminary and clinical diagnosis of the disease. in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum

LO4	Determine the necessary regime of work and rest in the treatment and prevention of diseases of patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO5	Determine the nature of nutrition in the treatment and prevention of diseases. patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO6	To determine the principles and nature of treatment and prevention of diseases. patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO7	Diagnose emergency conditions in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO8	Determine tactics and provide emergency medical care to patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO9	Carry out treatment and evacuation measures in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO10	Perform medical manipulations on patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO11	Solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility. in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO12	Carry out sanitary and hygienic and preventive measures in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO13	Carry out performance examination in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO14	Maintain medical documentation, including electronic forms for patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO15	Assess the impact of the environment, socio-economic and biological determinants on the state of health of the individual, family, population in patients with acute surgical pathology of the organs of the abdominal cavity, retroperitoneal space and rectum
LO16	Clearly and unambiguously communicate one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying
LO17	Adhere to ethical principles when working with patients and laboratory animals

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

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.
PO4	Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).
PO5	Collect complaints, history of life and diseases, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient.
PO6	Establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, differential diagnosis, observing the relevant ethical and legal norms, under the control of the head physician in the conditions of the health care institution (according to the list 2).
PO7	Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) of patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).
PO8	Determine the main clinical syndrome or what determines the severity of the condition of the victim/injured (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care institution, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.
PO9	Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to justify personalized recommendations under the control of the head physician in the conditions of a medical institution.
PO10	Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
PO14	Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time conditions according to existing clinical protocols and standards of treatment.

PO15	To organize the provision of medical aid and medical evacuation measures to the population and military personnel in emergency situations and hostilities, including in field conditions.
PO17	Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.
PO18	To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.
PO19	Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.
PO21	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.
PO23	Assess the impact of the environment on human health in order to assess the morbidity of the population.
PO24	To organize the necessary level of individual safety (own and the persons he cares about) 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 and master modern knowledge.
SS3	Ability to apply knowledge in practical situations.
SS4	Knowledge and understanding of the subject area and understanding of professional activity.
SS5	Ability to adapt and act in a new situation.
SS6	Ability to make informed decisions.
SS7	Ability to work in a team.
SS8	Ability to interpersonal interaction.
SS9	Ability to communicate in a foreign language.
SS10	Ability to use information and communication technologies.
SS11	Ability to search, process and analyze information from various sources.
SS12	Determination and persistence in relation to assigned tasks and assumed responsibilities.

8. Teaching and learning activities

Topic 1. Control of the residual level of knowledge from I - III courses. Principles of formation of preliminary and clinical diagnosis.

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)

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.

Topic 2. Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall

pr.tr.2 "Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall" (full-time course)

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).

Topic 3. Herniated syndrome. Complications of anterior abdominal wall hernias

lect.1 "Abdominal hernias and their complications. Acute appendicitis. Acute peritonitis" (full-time course)

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)

pr.tr.3 "Complicated hernias of the anterior abdominal wall" (full-time course)

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).

Topic 4. Acute inflammatory abdominal syndrome

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 and master modern knowledge. GC 3 Ability to apply knowledge in practical situations. GC 4 Knowledge and understanding of the subject area and understanding of professional activity. GC 5 Ability to adapt and act in a new situation. GC 6 Ability to make informed decisions. GC 7 Ability to work in a team. GC 8 Ability to interpersonal interaction. GC 9 Ability to communicate in a foreign language. GC 10 Ability to use information and communication technologies. GC 11 Ability to search, process and analyze information from various sources. GC 12 Determination and persistence in relation to assigned tasks and assumed responsibilities.

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
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	Можливість перескладання з метою підвищення оцінки
The first semester of teaching	200 scores	
SA1. Final control: exam	80	

	Answers to theoretical questions and questions of practical training	80	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	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	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	No
SA5. Final testing		10	
	Computer testing according to the subject of the discipline	10	No
SA6. Assessment of performance of practical skills and manipulations		20	
	Demonstration of patient examination skills, interpretation of additional examination data, performing manipulations	20	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	Emergency abdominal surgery [Електронний ресурс] : study guide / O. L. Sytnik, M. G. Kononenko, Yu. V. Melekhovets, H. I. Piatykor ; ed. by O. L. Sytnik. — Sumy : Sumy State University, 2023. — 166 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	Violence, trauma and trauma surgery. Ethical issues, interventions and innovations / M. Siegler, S. O. Rogers - Springer Nature Switzerland AG 2020.- 2020.- 298 p.
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. Berezhnytsky, 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	Primary Surgery [Volume One: Non-Trauma]/ Michael Cotton at all. - 2d ed.-2016.- 881 p.
5	Minimally Invasive Surgery for Upper Abdominal Cancer [Електронний ресурс] / edited by Miguel A. Cuesta. — 1st ed. 2017. — Cham : Springer International Publishing, 2017. — XV, 368 p. 253 illus., 220 illus. in color.
Web-based and electronic resources	
1	http://www.mayo.edu/research (Клініка Мейо, США).
2	http://videolectures.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

COURSE DESCRIPTOR

№	Course Descriptor	Total hours	Classroom work, hours				Independent work of students, hours							
			Total hours	Lectures	Workshops (seminars)	Labs	Total hours	Self-study of the material	Preparation for workshops (seminars)	Preparation for labs	Preparation for assessment	Independent extracurricular tasks		
1	2			3	4	5	6	7	8	9	10	11	12	13
full-time course														
Module 1. «Urgent surgical diseases of the abdominal cavity»														
1	Control of the residual level of knowledge from I - III courses. Principles of formation of preliminary and clinical diagnosis.			2.5	2	0	2	0	0.5	0	0.5	0	0	0
2	Herniated syndrome. Uncomplicated hernias of the anterior abdominal wall			2.5	2	0	2	0	0.5	0	0.5	0	0	0
3	Herniated syndrome. Complications of anterior abdominal wall hernias			5	4	2	2	0	1	0.5	0.5	0	0	0
4	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
5	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
6	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
7	Acute inflammatory abdominal syndrome			5	4	2	2	0	1	0.5	0.5	0	0	0
8	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
9	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
10	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
11	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
12	Acute inflammatory abdominal syndrome			2.5	2	0	2	0	0.5	0	0.5	0	0	0
13	Gastrointestinal bleeding			2.5	2	0	2	0	0.5	0	0.5	0	0	0
14	Gastrointestinal bleeding			2.5	2	0	2	0	0.5	0	0.5	0	0	0
15	Gastrointestinal bleeding			2.5	2	0	2	0	0.5	0	0.5	0	0	0

1	2	3	4	5	6	7	8	9	10	11	12	13
16	Intestinal obstruction	2.5	2	0	2	0	0.5	0	0.5	0	0	0
17	Intestinal obstruction	2.5	2	0	2	0	0.5	0	0.5	0	0	0
18	Intestinal obstruction	2.5	2	0	2	0	0.5	0	0.5	0	0	0
19	Perforation of the hollow organ, peritonitis	2.5	2	0	2	0	0.5	0	0.5	0	0	0
20	Perforation of the hollow organ, peritonitis	2.5	2	0	2	0	0.5	0	0.5	0	0	0
21	Perforation of the hollow organ, peritonitis	2.5	2	0	2	0	0.5	0	0.5	0	0	0
22	Perforation of the hollow organ, peritonitis	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Module 2. «Urgent surgical diseases of the colon and rectum and perianal area»												
1	Acute pain syndrome in the rectum and perianal area	5	4	2	2	0	1	0.5	0.5	0	0	0
2	Acute pain syndrome in the rectum and perianal area	2.5	2	0	2	0	0.5	0	0.5	0	0	0
3	Rectal prolapse syndrome	2.5	2	0	2	0	0.5	0	0.5	0	0	0
4	Diarrheal-inflammatory syndrome of the colon	2.5	2	0	2	0	0.5	0	0.5	0	0	0
5	Diarrheal-inflammatory syndrome of the colon	2.5	2	0	2	0	0.5	0	0.5	0	0	0
6	Diarrheal-inflammatory syndrome of the colon	2.5	2	0	2	0	0.5	0	0.5	0	0	0
7	Performance of practical skills and manipulations	2.5	2	0	2	0	0.5	0	0.5	0	0	0
8	Curation of patients	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Assesment												
1	Exam	30	0	0	0	0	30	0	0	0	30	0
Independent extracurricular tasks												
<i>Total (full-time course)</i>		<i>90</i>	<i>66</i>	<i>6</i>	<i>60</i>	<i>0</i>	<i>24</i>	<i>1.5</i>	<i>15</i>	<i>0</i>	<i>30</i>	<i>0</i>

	<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 2024 Duration one semester Mode of study full-time course Language of instruction English</p>
Teacher(s)	Danylenko Ihor Anatoliiovych
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://mix.sumdu.edu.ua/textbooks/76452
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/course/bc5f0c3b067229e30cb86b27fd9b8b634338450
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

добросовісності.

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