

**MINISTRY OF HEALTH CARE OF UKRAINE**

**DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY**

**Department of operative surgery and topographic anatomy**

**“APPROVED”**

First Vice-Rector on  
Scientific and Pedagogical Work  
Associate Professor Iryna SOLONYNKO

“ ” 2022

**DISCIPLINE of choice  
PROGRAM**

**“Modern aspects of clinical anatomy in abdominal surgery”**

**Second (master's) level of higher education**

**Field of knowledge 22 “Health care”**

**Speciality 222 “Medicine”**

**Faculty, year: Medical, 4-5<sup>th</sup>**

Improved at methodical council of the department of operative surgery with topographical anatomy protocol № <u>12</u> « <u>16</u> » <u>06</u> . 2022.	Improved at profile methodical council meeting of medical-biological discipline protocol № <u>3</u> « <u>23</u> » <u>06</u> . 2022.
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## **Introduction**

### **Working curriculum at discipline of choice “Modern aspects of clinical anatomy in abdominal surgery”**

according standards of specialists of the second (master's) level

branch of knowledge 22 “Health care”

Speciality 222 “Medical”

educational program of master of Medicine

### **Description of the educational discipline (annotation).**

The working curriculum on discipline "Modern aspects of clinical anatomy in abdominal surgery" for students of the IV courses of the medical faculty on the specialty 222 "Medicine" is concluded on the basis of Regulations on the working curriculum of discipline developed in accordance with the Regulation on organization of educational process at Danylo Halytsky Lviv National Medical University, improved by the Academic Council of the University on February 18, 2015, the protocol No. 1-BP and orders of the rector on the improvement of educational process organization. The purpose of the Regulation is to standardize the content, volume, sequence and organizational forms of student study, as well as the forms and means of current and final knowledge control.

Working curriculum of discipline is the normative document of the university, which is developed by the staff of the department for each academic discipline on the basis of the branch standard of higher education in accordance with the curriculum.

The working curriculum should ensure: the content of the department standards of higher education through the direct link between the content of the discipline and the objectives of higher education (skills and abilities of the specialist defined in the OC); compliance with licensing and accreditation terms and conditions; compliance with "Standards and Recommendations for Quality Assurance in the European Higher Education Area"; the possibility of using disciplinary competencies as an information base for the development of diagnostic options; uniqueness of the criteria for evaluation of academic achievements.

The working curriculum of the discipline in its content is a document that defines the amount of knowledge that must be mastered by the student in accordance to the requirements of the educational and qualification characteristics of the future specialist, the algorithm for studying the discipline content taking into account of interdisciplinary connections, eliminating the duplication of the educational material at study of common various courses of problems, necessary methodological support, components and technology for assessing students' knowledge.

The working curriculum as a normative document laying the ideology of the content of education and organization of the educational process, determines the educational and methodological principles of the department; all educational and methodical materials are developed on its basis for the educational process, including independent students work.



Structure of discipline	Number of hours, in them				Year of study	Type of control
	In all	Auditorium		OCW (hrs.)		
		Lectures (hrs.)	Pract. lessons (hrs.)			
Name of discipline: “Modern aspects of clinical anatomy in abdominal surgery” <i>Content module 3</i>	1,5credits ECTS/ 30 hrs.	-	26	34	IV course (7 semester)	Credit

**The subject of discipline study** is the layered structure of the body and the principles of operations.

**Interdisciplinary connections:** histology, normal physiology, surgery, therapy, radiology, neurology, dentistry, etc.

### 1. The purpose and objectives of discipline

**1.1.** The purpose and tasks of the discipline of choice "Modern aspects of clinical anatomy in abdominal surgery" is based on the goals of the educational-professional program of graduates preparation of a higher medical school and are determined by the content of those system knowledge and skills that a specialist should acquire. The knowledge that students receive from the academic discipline "**Modern aspects of clinical anatomy in abdominal surgery**" are basic for the block of disciplines providing the natural sciences (block of NS) and vocational and practical training (PT).

**1.2.** The main tasks of studying the discipline "Modern aspects of clinical anatomy in abdominal surgery" are as follows:

a) are based on the students study of morphological disciplines - human anatomy; histology, cytology and embryology; physiology, pathomorphology; pathophysiology; propaedeutics of internal medicine, propaedeutics of pediatrics, radiology and integrate with these disciplines;

b) creates the foundation for the students study of abdominal surgery, traumatology, anesthesiology and intensive care and other educational disciplines where surgical methods of treatment are used, which involves the integration of teaching with these disciplines and formation of skills to apply knowledge in the process of further education and professional activity;

c) provides the opportunity to obtain practical skills and to develop professional skills for the provision of medical care at certain pathological conditions and during care of surgical patients.

As a result of discipline study student must:



- know the structure, topography and syntopy of the human body parts;
- demonstrate possession of the technique of basic surgical interventions performance on experimental animals and human corpses.

1.3. Competence and learning outcomes, the formation of which is facilitated by discipline (the relationship with the normative content of higher education graduates training, formulated in terms of learning outcomes of Higher Education Standard).

In accordance with the requirements of Higher Education Standard, discipline ensures students' acquisition of competences:

- *general*: ability of abstract thinking, analysis and synthesis; the ability to learn and to master modern knowledge; ability to apply knowledge in practical situations; knowledge and understanding of the subject field and understanding of professional activity; ability to adapt and act in a new situation; the ability to make informed decisions; ability to work in a team; the ability for interpersonal interaction; the ability to communicate in a foreign language; the ability to use information and communication technologies; the ability to search, process and analyze information from various sources; determination and persistence in relation to the assigned tasks and assumed responsibilities; awareness of equal opportunities and gender issues; the ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine; the ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle. Basics for students to study of clinical anatomy and operative surgery, histology, normal physiology, propaedeutics of clinical disciplines.
- *special (professional, subject)*: ability to collect medical information about the patient and analyze clinical data; the ability to determine the necessary list of laboratory and instrumental studies and evaluate their results; the ability to determine the principles and nature of treatment and prevention of diseases; the ability to diagnose emergency conditions; the ability to determine tactics and provide emergency medical assistance; Ability to perform medical manipulations; the ability to 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; to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to persons who are studying; the ability to develop and implement scientific and applied projects in the field of health care; compliance with



ethical principles when working with patients and laboratory animals; observe professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

Formation of skills to apply knowledge of clinical anatomy and operative surgery in the process of further study of all clinical disciplines and in future professional activities.

Detail of competencies according to the descriptors of the NRC in the form of "Matrix of competencies".

<b>№</b>	<b>Competencies</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Communi- -cation</b>	<b>Autonomy and responsibility</b>
1.	Professional: 1. Ability to collect medical information about the patient and analyze clinical data. 2. Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results. 6. Ability to determine the principles and nature of treatment and prevention of diseases. 7. Ability to diagnose emergency conditions. 8. Ability to determine tactics and provide emergency medical care. 10. Ability to perform medical manipulations. 11. Ability to 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. 21. Clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to students. 23. Ability to develop	- essence, the fundamental properties of the layered structure of the human body; - types of body structure; - concept of norm, variants, anomalies; - concept of individual variability; - concept about constitution of the trunk; - layered structure of abdominal wall; - features of topographic anatomy of abdomen; -topography of peritoneum; - features of topographic anatomy of superior floor of abdomen; porto-caval anastomosis; - features of topographic anatomy inferior floor of abdomen; -principles of laparoscopic interventions; -types of intestinal sutures; -intestinal sutures requirements; -types of intestinal	- to confirm situational tasks from the main parts of discipline; - to determine the layered structure features of abdominal wall; -to determine structure and function of abdominal organs; -to differentiate layers of the intestinal wall; -to be able to perform different types of intestinal sutures; -to demonstrate on animal material different types of intestinal sutures application; -to demonstrate on the animal material different types of intestinal anastomoses; -to define blood supply of stomach and its clinical value; -to define the innervation of stomach and its practical value; -to define topography of stomach; -to demonstrate on the animal material different types of gastrostomies; -to demonstrate on the animal material gastrectomy; -to demonstrate on the		- mastering of practical skills in use of surgical instruments and suturing material; - technique of intestinal sutures application; - technique of different types of anastomosis performance; - technique of the operations on small and large intestine; - technique of operations on the stomach (gastrostomy, resection of the stomach); - technique of operations on the spleen; - technique of operations on the liver and gall bladder (cholecystectomy).



	<p>and implement scientific and applied projects in the field of health care.</p> <p>24. Compliance with ethical principles when working with patients and laboratory animals.</p> <p>25. Observance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.</p>	<p>anastomosis;</p> <p>-principles of the operations on large intestine;</p> <p>-volumes and technique of large intestine resections;</p> <p>-technique of perforated stomach ulcer suturing;</p> <p>-types of gastrostomies;</p> <p>-technique of gastrectomy;</p> <p>-technique of gastroentero-anastomosis performance;</p> <p>-types of stomach resections and their modifications;</p> <p>-vagus nerve branches topography and innervation of the stomach;</p> <p>-technique of splenectomy performance;</p> <p>-principles of the operations on pancreas;</p> <p>-types of liver resections;</p> <p>-technique of biliodigestive anastomoses;</p> <p>-types of cholecystectomies;</p> <p>-typical localisation and pathways of pyogenic processes spreading in the abdominal cavity.</p>	<p>animal material suturing of stomach perforations;</p> <p>- to demonstrate on the animal material different types of stomach resections;</p> <p>-to define topography of vagus nerve branches;</p> <p>-to define variants of gall bladder blood supply and their practical value;</p> <p>-to define gall bladder topography;</p> <p>-to define anatomical areas of bile ducts termination;</p> <p>-to demonstrate on the animal material types of cholecystectomy;</p> <p>-to demonstrate suturing of liver on animal material.</p>		
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**Learning outcomes:** the knowledge that students receive from the discipline of choice "Modern aspects of clinical anatomy in abdominal surgery", are basic for the block of disciplines providing the natural sciences (block of psychology) and the professional-practical (block of PP) preparation.

Integrative final programmatic learning outcomes, the formation of which is facilitated by the discipline: the ability to analyze information about the layered structure of the human body, its systems, organs and tissues; to demonstrate possession of moral and ethical principles of the attitude to living person and his body as an object of anatomical and clinical research; variants of organs variability,



congenital defects; to interpret gender, age and individual features of the human body structure; to explain the patterns of development and features of the human organs and systems structure at macro- and microscopic levels; to predict the interdependence and unity of structures and functions of human organs of their variability under the influence of environmental factors; to determine the topographic-anatomical relations between human organs and systems; determine the influence of social conditions and labor on the development and structure of the human body.

Results of study for the discipline: histology, normal physiology, surgery, therapy, radiology, neurology, etc.

## 2. Information volume of educational discipline

2 ECTS credits are assigned to the study of the academic discipline 60 hours: 0 hours of them - lectures, 26 hours - practical classes, 34 hours. - individual work.

The main types of educational classes in the discipline are practical classes and independent work of students on the subject of the educational discipline program.

## 3. Structure of educational discipline.

Topic	Lectures	Practical lessons (workshops)	OCW
1. Life safety during wartime, emergency medical care, psychological care, anticrisis management. Intestinal sutures and anastomosis. Resections of small intestine “end-to-end”, “side-to-side”, “end-to-side”, indications, technique of operation, complications.	-	2	4
2. Operations on the large intestine: resections of the large intestine, colostomy, surgery to create anus praeternaturalis, appendectomy. Indications, operation technique, complications.	-	2	4
3. Gastrostomy by the method of Witzel, Toprover, Cader, indications, technique of operation, complications.	-	2	
4. Gastrectomy. Gastroenterostomy. Indications, operation technique, complications.	-	2	4
5. Perforating stomach ulcer. Complications and technique of operative treatment.	-	2	4
6. Principles of stomach resections at Billroth I-st, modifications, indications, technique of operation, complications.	-	2	
7. Principles of stomach resections at Billroth II-nd	-	2	



modifications, indications, technique of operation, complications.			
8. Vagotomy: classification, technique, complications. Operative treatment of pylorostenosis.	-	2	4
9. Operations on the spleen. Indications, operation technique, complications.	-	2	
10. Operations on the pancreas. Pancreatoduodenal resection. Indications, operation technique, complications.	-	2	4
11. Principles of operations on the liver and biliary tract, indications, technique, operations, complications.	-	2	4
12. Antegrade cholecystectomy (from the bottom). Retrograde cholecystectomy (from the neck). Indications, operation technique, complications.	-	2	4
13. Purulent processes of the abdominal cavity: localization, ways of spreading, principles of treatment.	-	2	2
<b>In all</b>		<b>26</b>	<b>34</b>

#### 4. Thematic plan of practical classes

	<b>Topic</b>	<b>Hrs.</b>
1.	Life safety during wartime, emergency medical care, psychological care, anticrisis management. Intestinal sutures and anastomosis. Resections of small intestine “end-to-end”, “side-to-side”, “end-to-side”, indications, technique of operation, complications.	2
2.	Operations on the large intestine: resections of the large intestine, colostomy, surgery to create anus praeternaturalis, appendectomy. Indications, operation technique, complications.	2
3.	Gastrostomy by the method of Witzel, Toprover, Cader, indications, technique of operation, complications.	2
4.	Gastrectomy. Gastroenterostomy. Indications, operation technique, complications.	2
5.	Perforating stomach ulcer. Complications and technique of operative treatment.	2
6.	Principles of stomach resections at Billroth I-st, modifications, indications, technique of operation, complications.	2
7.	Principles of stomach resections at Billroth II-nd modifications, indications, technique of operation, complications.	2
8.	Vagotomy: classification, technique, complications. Operative treatment of pylorostenosis.	2
9.	Operations on the spleen. Indications, operation technique, complications.	2
10.	Operations on the pancreas. Pancreatoduodenal resection. Indications, operation technique, complications.	2



11.	Principles of operations on the liver and biliary tract, indications, technique, operations, complications.	2
12.	Antegrade cholecystectomy (from the bottom). Retrograde cholecystectomy (from the neck). Indications, operation technique, complications.	2
13.	Purulent processes of the abdominal cavity: localization, ways of spreading, principles of treatment.	2
	<b>In all</b>	<b>26</b>

## 5. Thematic plan of out of class work

№	Topic	Hrs.	Type of control
1.	Individual independent work of students on the topic (literature review) "Laparoscopic operations on the intestine".	4	Continuous control at practical classes
2.	Individual independent work of students on the topic (literature review) "Endoscopic colon interventions"	4	- "-
3.	Individual independent work of students on the topic (literature review) "Endoscopic interventions on the stomach and duodenum"	4	- "-
4.	Individual independent work of students on the topic (literature review) "Gastrointestinal bleeding. Principles of surgical treatment".	4	- "-
5.	Individual independent work of students on the topic (literature review) "Diseases of the operated stomach".	4	- "-
6.	Individual independent work of students on the topic (literature review) "Biliodigestive anastomoses"	4	- "-
7.	Individual independent work of students on the topic (literature review) "Portal hypertension. Portocaval anastomoses."	4	- "-
8.	Individual independent work of students on the topic (literature review) "Laparoscopic operations on the liver and biliary tract".	4	- "-
9.	Individual independent work of students on the topic (literature review) "Methods of drainage of the abdominal cavity".	2	- "-
	<b>In all</b>	<b>34</b>	

6. **Individual lessons** are not planed.

7. **Tasks for independent work**



Independent work of students is carried out in the form of preparation for practical classes (preparation of theoretical questions, mastery of skills according to the subject of the class, etc.).

## **8. Educational methods**

At practical classes for the effective assimilation of the material different educational methods are used, namely:

- Visual method (teacher's demonstration of organocomplexes, dry and wet preparations, use of atlases, illustrations of textbooks, tables, demonstration of separate surgical techniques principles on animal material, and others);
- Practical method (student's work with organocomplexes, dry and wet preparations, solving tests, situational tasks, working out of separate surgical techniques on animal material);
- The verbal method (teacher's explanation of the unclear questions from the previous topic of the class or lecture, teacher's explanation of the topic of the current practical lesson, lecture);
- Work with a book (writing notes by students during self-study and performing out of class work);
- Video method (use of thematic video films at lecture course, multimedia presentations of lectures).

## **9. Methods of control**

Types of control (current and final)

Final control form according to the curriculum (credit)

## **10. Current control**

*Current control* is carried out on the basis of control of theoretical knowledge, skills and abilities.

Forms of current control:

1. Oral questioning (frontal, individual, combined).
2. Practical examination of the formed professional skills.
3. Test control (open and closed test tasks).

Current control is carried out during the lessons and is aimed at verifying students' learning of the material. The form of ongoing control during the lessons is determined by the working curriculum of the discipline.

*Assessment of current educational activities.* When assessing the mastering of each topic for the current educational activity, the student is awarded grades on a 4-point (traditional) scale, taking into account the approved evaluation criteria. At the same time, all types of work provided by the educational program are taken into account. The student must receive a grade in each topic. Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.



The department uses following evaluation criteria according to the traditional 4-point scale:

**Excellent ("5")** – The student correctly answered 90-100% of the tests in the format A. Correctly, clearly, logically and fully answers all standardized questions of the current topic, knows well the material of the previous topics (the initial level of knowledge), answers the questions of the lecture course and the questions of out of class work. Properly demonstrates the preparations (knowledge of practical skills), correctly uses the Latin terms. Makes a generalization of the material, complements his answer by knowing additional literature. He fulfilled all the tasks, provided by the methodological recommendations during the independent work of the student. He wrote an abstract on the proposed topic or independently made an anatomical preparation (individual work).

**Good ("4")** - Student correctly answered 70-90% of the tests in the format A. Correctly, sometimes with the help of explanatory questions, answers standardized questions of the current topic, knows the material of previous topics (initial level of knowledge), answers the questions of the lecture course and the question of out of class work. Properly demonstrates the preparations (knowledge of practical skills). The student correctly uses the Latin terms. He fulfilled all the tasks provided for by the methodological recommendations at the independent work of the student.

**Satisfactory ("3")** - The student correctly answered 50-70% of the A format tests. Incompletely, with the help of explanatory questions, answers standardized issues of the current topic, questions on the material of previous topics (initial level of knowledge), inaccurately and incompletely answers the questions of the lecture course and the question of out of class work. Cannot independently build a clear, logical answer. During the answer and demonstration of the preparations (knowledge of practical skills) the student makes minor mistakes. The student uses Latin terms with errors, or does not fully understand the Latin terms of the topic of the current class and previous occupations. Fulfilled not entirely the tasks provided by methodological recommendations at independent work of the student.

**Unsatisfactory" ("2")** - The student answered less than 50% of the A format tests. Does not know the material of the current topic. Or answers the questions posed to the current topic not enough, incompletely, cannot construct a logical answer, does not answer additional questions, does not understand the content of the material, does not know the question of the material of the previous topics (the initial level of knowledge), does not answer the questions of the lecture course and the question of independent work. During the response and demonstration of the drug (knowledge of practical skills) the student makes significant, gross mistakes. The student does not know the Latin terms from the topic of the current occupation and previous occupations, or uses Latin terms with errors. Did not fulfill the tasks provided by methodological recommendations during independent work of the student.

## **11.The form of final control of study success**

**For the discipline, the form of final control is the credit.**



**The maximum amount of points** that can be collected by a student during a module is 200 points.

**The minimum number of points** that can be collected by student during a module, calculated by multiplying the number of points corresponding to the evaluation "3", the number of topics in the module is 120 points.

**Calculation of points** is based on student assessments obtained by traditional scale in the study subjects during the semester, by calculating the arithmetic mean (CA), rounded to two decimal places. The resulting value is converted into points by multi-scale as follows:

$$X = \frac{CA \times 200}{5}$$

For convenience, a table converted 200-point scale.

**Recalculation of the average score for current activity in multimark scale for courses that are ended with the credit**

4-pointed scale	200-pointed scale	4-pointed scale	200-pointed scale	4-pointed scale	200-pointed scale	4-pointed scale	200-pointed scale
5	200	4.45	178	3.92	157	3.37	135
4.97	199	4.42	177	3.89	156	3.35	134
4.95	198	4.4	176	3.87	155	3.32	133
4.92	197	4.37	175	3.84	154	3.3	132
4.9	196	4.35	174	3.82	153	3.27	131
4.87	195	4.32	173	3.79	152	3.25	130
4.85	194	4.3	172	3.77	151	3.22	129
4.82	193	4.27	171	3.74	150	3.2	128
4.8	192	4.24	170	3.72	149	3.17	127
4.77	191	4.22	169	3.7	148	3.15	126
4.75	190	4.19	168	3.67	147	3.12	125
4.72	189	4.17	167	3.65	146	3.1	123
4.7	188	4.14	166	3.62	145	3.07	122
4.67	187	4.12	165	3.57	143	3.02	121
4.65	186	4.09	164	3.55	142	3	120
4.62	185	4.07	163	3.52	141	Less than 3	Not enough
4.6	184	4.04	162	3.5	140		
4.57	183	4.02	161	3.47	139		
4.52	181	3.99	160	3.45	138		
4.5	180	3.97	159	3.42	137		
4.47	179	3.94	158	3.4	136		



*Out of class work of the students* is assessed during the current control of theme on the proper lesson. The acquisition of the topics which are considered only on independent work is controlled at the final control.

### **Methodical providing**

Methodical recommendations for students and teachers, workbooks, tables, models, schemes, educational films, surgical instruments, suture material, dry preparations, animal corpses.

### **12.Recommended literature**

1. К.І.Кульчицкий, М.П.Ковальський, А.П.Дітківський, М.С.Скрипніков та ін. Оперативна хірургія і топографічна анатомія. Київ, «Вища школа», 1994.- 464 с.
2. К.И.Кульчицкий, И.И.Бобрик, А.П.Дитковский, С.А.Солорева и др. Оперативная хирургия и топографическая анатомия./учебник для медвузов/. - Киев, «Вища школа», 1989. - 472 с.
3. М.С.Скрипніков (ред.) Оперативна хірургія і топографічна анатомія. Київ, Вища школа, 2000.
4. С.И.Елизаровский, Р.Н.Калашников. Оперативная хирургия и топографическая анатомия. М., 1967.
5. К.И.Кульчицкий, И.И.Бобрик (ред.). Оперативная хирургия и топографическая анатомия. Киев, Высшая школа, 1989.
6. В.В.Кованов (ред.). Оперативная хирургия и топографическая анатомия. М., Медицина, 1985.
7. В.Ф.Вільховий, М.С.Скрипніков, В.І.Шепітько, І.Р.Кенс. Атлас хірургічної анатомії кровоносних судин голови та шиї. Київ, Вища школа, 1998.
8. Bernard C. Illustrated Manual of Operative Surgery and Surgical Anatomy. - 1991.
9. Pemberton L.B. Workbook of Surgical Anatomy. - 1990.
10. Gliedman M.L. Atlas of Surgical Technigues. - New York etc., McGraw - Hill. - 1990.
11. Sabiston D.C. Atlas of General Surgery. - Philadelphia etc., Saunders. - 1994.
12. Chassin J.L. Operative Strategy in General Surgery. New York etc., Springer. - 1994.
13. Т.В.Золотарева, Г.Н.Топоров. Хирургическая анатомия головы. Москва, Медицина, 1968.
14. Ю.А.Золотко. Атлас топографической анатомии человека. М., 1978.
15. Р.Й.Вайда. Основи клінічної анатомії та оперативної хірургії (лекції).- Тернопіль.- «Укрмедкнига», 2001.
16. М.П.Бурих. Топографічний підхід до вивчення тіла людини. - Харків, 2005. - 30 с.
17. М.П.Ковальський, О.Б.Кобзар. Навчально-методичні матеріали для підготовки до підсумкового контролю знань і вмінь на кафедрі оперативної хірургії і топографічної анатомії (для студентів медичного факультету). - К., Стилос, 1999-2004. - Видання 1-5. - 79 с.
18. А.Г.Попов, В.К.Красницкий, В.И.Горovenko. Учебное пособие «Тестовые задачи» по курсу оперативной хирургии и топографической анатомии. Одесса, 2004. - 120 с.
19. В.В.Кованов, Т.И.Аникина, И.А.сычеников. Курс лекций по оперативной хирургии и топографической анатомии. М., 1972.
20. К.И.Кульчицкий. Лекции по оперативной хирургии и топографической



**13.Information resources:** the page of the department on the university's website

**14.Appendices:**

**List 1  
(syndromes and symptoms)**

- 8. abdominal pain
- 10. pain in the perineum
- 12. vomiting
- 37. intestinal obstruction
- 39. external bleeding
- 40. internal bleeding
- 55. portal hypertension
- 73. gastrointestinal bleeding

**List 2  
(diseases)**

**IV) Diseases of the cardiovascular system:**

- 45. acute occlusion of truncal and peripheral arteries

**VI) Diseases of digestive organs:**

- 81. prolapse of the rectum
- 82. ulcerative disease
- 83. congenital malformations of digestive organs
- 87. acute intestinal obstruction
- 88. acute and chronic appendicitis
- 89. acute and chronic pancreatitis
- 93. incarcerated and non-incarcerated abdominal hernias
- 94. neoplasms of the esophagus, stomach, colon, liver and pancreas
- 95. peptic ulcers of the stomach and duodenum
- 96. peritonitis
- 97. perforation of a hollow organ
- 100. pylorostenosis
- 101. abdominal injuries (superficial, opened)
- 103. diseases of the operated stomach
- 104. cholecystitis, cholangitis, gallstone disease, choledocholithiasis
- 106. gastrointestinal bleeding

**VII) Diseases of the genitourinary system:**

- 116. urolithiasis

**XII) Diseases of the female reproductive system**

- 227. ectopic pregnancy
- 236. injuries of the uterus and birth canal
- 238. ovarian apoplexy



