MINISTRY OF HEALTH CARE OF UKRAINE

DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department of operative surgery and topographical anatomy

"APPROVED"
First Vice-Rector on
Scientific and Pedagogical Work
Associate Professor Iryna SOLONYNKO
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"____"_____2022

DISCIPLINE PROGRAM
"Clinical anatomy and operative surgery"

Second (master's) level of higher education
Field of knowledge 22 "Health care"
Speciality 222 "Medicine"
Faculty, year: Medical, 2nd

Improved at methodical council of the department of operative surgery with topographical anatomy protocol № 12 «16» 06. 2022. Department leader, prof. Zoryana Masna	Improved at profile methodical council meeting of medical-biological discipline protocol № 3 «23» 06. 2022. Head of comission prof. Oleksandr Lutsyk

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Introduction

Working curriculum at discipline “Clinical anatomy and operative surgery”
according standards of specialists of the second (master's) level
branch of knowledge 22 “Health care”
Speciality 221 “Dentistry”
educational program of master of Medicine

Description of the educational discipline (annotation).

The working curriculum on discipline "Clinical anatomy" for students of the I-II 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: Clinical anatomy and operative surgery	**3 credits ECTS/ 90 hrs.**	**10**	**34**	**46**	**II course (4 semester)**	**Differen-tiated 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: "Clinical anatomy and operative 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 "Clinical Anatomy and Operative 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 "Clinical anatomy and operative 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 surgery, traumatology, surgical dentistry, neurosurgery, 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".

№	Competencies	Knowledge	Skills	Communi-cation	Autonomy and responsibility
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-	- essence, the fundamental properties of the layered structure of the human body; - features of anatomy structure of the head; - features of topographical anatomy of the neck; - features of topographical anatomy of the chest; - concept of norm, variants, anomalies; - concept of individual variability; - concept about constitution of the chest; - features of topographical anatomy of abdomen; - types of body structure; - features of topographic anatomy of the lumbar region and retroperitoneal space; - features of topographic anatomy of pelvis; - features of topographic anatomy of the upper limb; - features of topographic anatomy of the lower limb.	- to confirm situational tasks from the main parts of discipline; - to determine the layered structure features of parts of the head; - to know how to perform debridement of wounds of the skull; - to demonstrate on a phantom the methods of anaesthesia on maxilla and mandible; - to differentiate the external and internal carotid arteries in the triangle; - to define in Pyrogov`s triangle the lingual artery; - to demonstrate thoracic wall structure on dry preparation; - to define structure and function of thoracic cavity organs; - to determine localization and formation of cava veins; - to determine the puncture of the pleural cavity; - to define the structure and function of the abdominal cavity organs; - to differentiate the topography of peripheral nerves and vessels of the trunk; - to demonstrate on wet preparations the performance of intestinal sutures; - to demonstrate on wet preparations the performance of liver		- mastering of practical skills in use of surgical instruments and suturing material; - technique of operations on the trachea (tracheotomy, conicotomy); - defining of conditional lines on the surface of the chest; - technique of operations on the stomach (gastrostomy, resection of the stomach); - technique of operations on the small and large intestine; - technique of operations on the liver (cholecysectomy); - technique of operations on vessels and nerves; - technique of operations on muscles and tendons; - technique of operations on the limbs (amputations and exarcticulations).

	specialists, in particular to students. 23. Ability to develop and implement scientific and applied projects in the field of health care. 24. Compliance with ethical principles when working with patients and laboratory animals. 25. Observance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.		sutures; - to demonstrate paranephrone block performance on a phantom; - to determine the anatomical areas of lymphatic ducts termination; - to determine the structure and function of the pelvic organs; - to demonstrate catheterization of urinary bladder on the phantom; - to demonstrate on dry preparations bones and muscles of pelvis; - to determine the structure and function of the upper limb; - to show on dry preparations the structure of the upper extremity joints; - to demonstrate veinpuncture on the upper extremity fantom; - to demonstrate on the wet preparations the lower limb layered structure; - to analyse the features of the veins topography; - to analyse the formation and clinical significance of venous anastomoses.		

Learning outcomes: the knowledge that students receive from the academic discipline "Clinical Anatomy and Operative 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, dentistry, etc.

2. Information volume of educational discipline

3 ECTS credits are assigned to the study of the academic discipline 90 hours: 10 hours of them - lectures, 34 hours - practical classes, 46 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 the educational discipline

Topic	Lectures	Practical lessons (workshops)	OCW
1. Introduction into topographical anatomy. Classification of anesthesia. Types of the operative interventions. Principles of the operations. Surgical instruments. Life safety during wartime, emergency medical care, psychological care, anticrisis management.	2	2	4
2. Technique of tissue dissecting and connection. Primary surgical technique.	-	2	-
3. Topographical anatomy and operative surgery of cerebral-cranial area. Topographical anatomy and operative surgery of cranial cavity.	2	2	-
4. Topography of face. Orbit, nasal cavity. Operative treatment of purulent processes of the face.	-	2	5
5. Topography of areas of the neck. Operations at pyogenic processes of the neck. Exposure and ligature of external and common carotid artery.	-	2	-
6. Topography of organs of the neck (pharynx, larynx, trachea, oesophagus, thyroid gland). Operative procedures on the organs of the neck. Tracheotomy, tracheostomy.	-	2	10
7. Topographical anatomy and operative surgery of thoracic wall, breast, pleura and lungs.	2	2	4
8. Topography and operative surgery of mediastinum.	-	2	-
9. Topography and operative surgery of anterior-lateral abdominal wall. Surgical anatomy and operative treatment of anterior abdominal wall hernias.	2	2	5

10. Topography of peritoneum and abdominal cavity superior floor organs.	-	2	5
11. Topography of abdominal cavity inferior floor organs. Operations on the abdominal cavity organs: intestinal sutures and resections. Appendectomy. Operations on large intestine.	-	2	-
12. Operations on stomach (gastrostomy, stomach resections, gastroenterostomy). Operations on liver, gall bladder, biliary tract, pancreas and spleen.	-	2	4
13. Topography and operative surgery of lumbar region and retroperitoneal space. Basics of transplantology.	2	2	5
14. Topography and operative surgery of pelvic walls, floors, nerves and vessels, cellular tissue spaces and pelvic organs.	-	2	-
15. Topography and operative surgery of upper extremity: shoulder, arm, cubital fossa, forearm and hand.	-	2	-
16. Topography and operative surgery of lower extremity: gluteal area, femoral area, popliteal fossa, knee joint, crural area and foot.	-	2	-
17. Operations on the extremities. Operative treatment of panaris and tendosynovitis. Veinsection, veinpuncture. Vessel ligature and vessel suturing. Intramuscular injections. Treatment of abscesses. Principles of operative procedures on bones (amputation, exarticulation, joint resection).	-	2	4
In all	**10**	**34**	**46**

4. Thematic plan of lectures

№	Topic	Hours
1.	Introduction to the topographical anatomy and operative surgery. Classification of anaesthesia; types of operative procedures. Principles of the operations.	2
2.	Topography and operative surgery of cerebral part of the head. Leyered structure of calvaria. Scull trepannings. Topography of facial area of the head. Fascia and cellular spaces of the face. Surgical treatment of wounds of the face. Incisions at purulent processes on the face. Concept of operative procedures on paranasal sinuses. Surgical anatomy of the neck. Principles of the operative treatments on the neck.	2
3	Topographical anatomy and operative surgery of thoracic wall. Breast, diaphragm, pleura and its sinuses. Lungs. Mediastinum organs, heart and pericardium. Operations at mastitis. Pleural puncture. Thoracotomy. Operations on the heart.	2
4.	Topography and operative surgery of anterior-lateral abdominal wall. Types of abdominal wall incisions. Paracenthesis. Hernia treatment. Topographical anatomy and operative surgery of abdominal cavity organs. Main principles of the operative procedures on the empty organs. Intestinal sutures. Resections of small and large intestine.	2

	Types of gastrostomy. Stomach resections. Operationa on liver. Removal of gall bladder.	
5.	Topographical anatomy and operative surgery of lumbar region, retroperitoneal space and pelvis. Resection of kidney. Operations on urinary bladder. Urinary bladder puncture. Topographical anatomy and operative surgery of upper and lower extremities. Operations on extremities: ligature of the vessels, vascular sutures. Operations on nerves. Suture of tendon. Amputations and exarticulations.	2
	Ammount of hours in lectures	**10**

5. Thematic plan of practical lessons (workshops)

№	Topic	Hrs.
1.	Introduction into topographical anatomy. Classification of anesthesia. Types of the operative interventions. Principles of the operations. Surgical instruments. Life safety during wartime, emergency medical care, psychological care, anticrisis management.	2
2.	Technique of tissue dissecting and connection. Primary surgical technique.	2
3.	Topographical anatomy and operative surgery of cerebral-cranial area. Topographical anatomy and operative surgery of cranial cavity.	2
4.	Topography of face. Orbit, nasal cavity. Operative treatment of purulent processes of the face.	2
5.	Topography of areas of the neck. Operations at pyogenic processes of the neck. Exposure and ligature of external and common carotid artery.	2
6.	Topography of organs of the neck (pharynx, larynx, trachea, oesophagus, thyroid gland). Operative procedures on the organs of the neck. Tracheotomy, tracheostomy.	2
7.	Topographical anatomy and operative surgery of thoracic wall, breast, pleura and lungs.	2
8.	Topography and operative surgery of mediastinum.	2
9.	Topography and operative surgery of anterior-lateral abdominal wall. Surgical anatomy and operative treatment of anterior abdominal wall hernias.	2
10.	Topography of peritoneum and abdominal cavity superior floor organs.	2
11.	Topography of abdominal cavity inferior floor organs. Operations on the abdominal cavity organs: intestinal sutures and resections. Appendectomy. Operations on large intestine.	2
12.	Operations on stomach (gastrostomy, stomach resections, gastroenterostomy). Operations on liver, gall bladder, biliary tract, pancreas and spleen.	2
13.	Topography and operative surgery of lumbar region and retroperitoneal space. Basics of transplantology.	2
14.	Topography and operative surgery of pelvic walls, floors, nerves and	2

	vessels, cellular tissue spaces and pelvic organs.	
15.	Topography and operative surgery of upper extremity: shoulder, arm, cubital fossa, forearm and hand.	2
16.	Topography and operative surgery of lower extremity: gluteal area, femoral area, popliteal fossa, knee joint, crural area and foot.	2
17.	Operations on the extremities. Operative treatment of panaris and tendosynovitis. Veinsection, veinpuncture. Vessel ligature and vessel suturing. Intramuscular injections. Treatment of abscesses. Principles of operative procedures on bones (amputation, exarticulation, joint resection).	2
	In all hours	**34**

6. Thematic plan of out of class work

N	Topic	hours	Control type
1.	History of the subject.	4	Continuous control on the practical classes
2.	Principles of skin transplantation. Congenital anomalies of the face. Congenital fissures of lip and palatine. Uranoplasty, labioplasty. Principles of plastic surgery on the face. Cosmetic surgery.	5	-“-
3.	Operations on esophagus. Surgical approaches to the cervical part of spine and to esophagus. Vagosympathetic block by Vishnevski L. V.	5	-“-
4.	Operations on the thyroid gland.	5	-“-
5.	Resection of the rib. Operations at pneumothorax	4	-“-
6.	Principles of bariatric surgery. Abdominoplasty.	5	-“-
7.	Porto-caval anastomoses. Methods of portal hypertension surgical treatment.	5	-“-
8.	Laparoscopic operations on the abdominal organs.	5	-“-
9.	Principles of organ transplantations. Transplantation of kidney.	5	-“-
10.	Operations at tendon, nerve and vessel injuries (suturing of vessel, tendon and nerve).	4	-“-
	In all hours	**46**	

Individual lessons are not planed.

7. Tasks for independent work

Skilled work of students is performed in the form of preparation for practical classes (preparation of theoretical questions, mastering 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 (differentiated 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. 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.

The department uses the 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.**Form of final control of study success** (differentiated credit)

Semester differentiated credit is a form of final control, which consists in evaluating the student's learning of the learning material from the academic discipline based on current control and completed individual test tasks in the last lesson.

12. Scheme of accrual and distribution of points received by students:

For the discipline, the form of final control is differentiated credit:

The maximum number of points that a student can score for the current educational activity for admission to differentiated credit is 120 points.

The minimum number of points that a student must score for the current educational activity for admission to differentiated credit is 72 points.

The calculation of the number of points for the current study is carried out on the basis of the grades received by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (AM), rounded to 2 decimal places. The obtained value is converted into points on a multi-point scale as follows:

$$X = \frac{CAx120}{5}$$

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 (Differentiated 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	120	4.45	107	3.91	94	3.37	81
4.95	119	4.41	106	3.87	93	3.33	80
4.91	118	4.37	105	3.83	92	3.29	79
4.87	117	4.33	104	3.79	91	3.25	78
4.83	116	4.29	103	3.74	90	3.2	77
4.79	115	4.25	102	3.7	89	3.16	76
4.75	114	4.2	101	3.66	88	3.12	75
4.7	113	4.16	100	3.62	87	3.08	74
4.66	112	4.12	99	3.58	86	3.04	73
4.62	111	4.08	98	3.54	85	3	72
4.58	110	4.04	97	3.49	84	Less then 3	Not enough
4.54	109	3,99	96	3.45	83		
4.5	108	3,95	95	3.41	82		

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.

The grade for the discipline, which ends with a differentiated credit is defined as the sum of the points for the current educational activity (at least 72) and the points for the performance of individual test tasks in the last lesson (at least 50).

Points from the discipline are independently converted both to the ECTS scale and to the 4-point (national) scale. Points from the ECTS scale are not converted into a 4-point scale and vice versa.

Points of students studying in one specialty, taking into account the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Assessment ECTS	Statistical index
A	**Best 10% of students**
B	**Next 25% of students**
C	**Next 30% of students**
D	**Next 25% of students**
E	**Last 10% of students**

Ranking of assigning ratings of "A", "B", "C", "D", "E" is performed for the students of this course, studying at one of the specialty and successfully completed the study of subject. Students who have received assessment FX, F («2») are not

registered into the list of students who ranked. Students with the assessment FX after retaking are automatically marked with "E".

The scores of discipline for students who successfully completed the program converted to 4-point scale by absolute criteria listed in the table below:

Assessment *ECTS*	**Assessment at 4 points scall**
From 170 to 200 points	«5»
From 140 to 169 points	«4»
From 139 points to a minimum number of points that should recruit student	«3»
Below the minimum number of points that a student must collect	«2»

The assessment at ECTS in traditional scale is not converted because the scale of ECTS and four-point scale are independent.

Objectivity of students educational activities evaluation is tested with the statistical methods (coefficient of correlation between the assessment of ECTS and evaluation according national scale).

13.Methodical providing

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

14.Recommended literature

1. К.І.Кульчицький, 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, ВИ.Горовенко. Учебное пособие «Тестовые задачи» по курсу оперативной хирурги и топографической анатомии. Одесса, 2004. - 120 с.
19. В.В.Кованов, Т.И.Аникина, И.А.сыченков. Курс лекций по оперативной хирургии и топографической анатомии. М., 1972.
20. К.И.Кульчицкий. Лекции по оперативной хирургии и топографической анатомии. Киев-Полтава, 199

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

16. Appendices:

List 1
(syndromes and symptoms)

7. pain in the chest
8. abdominal pain
9. pain in the limbs and back
10. pain in the perineum
12. vomiting
13. broncho-obstructive syndrome
14. bulbar syndrome
15. effusion in the pleural cavity
31. asphyxia
37. intestinal obstruction
39. external bleeding
40. internal bleeding
45. uterine bleeding
48. paresis, paralysis
50. fractures of tubular bones
51. pneumothorax tensive (closed)
52. pneumothorax non tensive (open)
53. valvular pneumothorax
55. portal hypertension

57. heart rhythm and conduction disturbances
73. gastrointestinal bleeding

List 2
(diseases)

III) Diseases of the nervous system
17. intracranial injury
22. violation of cerebral circulation
Eye diseases
30. foreign body of the organ of vision
31. trauma to the organ of vision
Diseases of the throat, ears, nose
36. peritonsillar abscess
IV) Diseases of the cardiovascular system:
40. aortic aneurysms
42. varicose veins of the lower extremities
43. congenital heart defects
45. acute occlusion of truncal and peripheral arteries
48. ischemic heart disease
51. pulmonary heart
52. acquired heart defects
54. pericarditis
55. heart rhythm and conduction disturbances
57. injuries of the heart and blood vessels
58. pulmonary embolism
59. phlebitis, thrombophlebitis
V) Diseases of respiratory organs and mediastinum:
60. asphyxia
65. congenital malformations of respiratory organs
70. mediastinitis
72. lung and mediastinal neoplasms
73. pleuritis
76. pneumothorax
78. foreign body in the respiratory tract
79. trauma of the chest (superficial, open)
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
90. benign diseases of the esophagus
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:

109. congenital malformations of the urinary system
113. neoplasms of the kidney, urinary tract and prostate gland
116. urolithiasis

VIII) Diseases of the skin and subcutaneous tissue:

123. purulent-inflammatory diseases of fingers and hand
126. burns and frostbite
130. specific surgical infection (anaerobic clostridial and non-clostridial)

IX) Diseases of the musculoskeletal system and connective tissue:

131. ankylosing spondyloarthritis
132. congenital and acquired malformations of the musculoskeletal system
135. neoplasm of the musculoskeletal system
136. osteoarthritis
137. osteomyelitis
139. polytrauma
145. typical fractures of the bones of the shoulder, forearm, hand, hip, leg, foot
146. pelvis injury
147. spine injury
148. damage to large joints (hip, knee, ankle-foot, elbow)

X) Diseases of the endocrine system, nutritional disorders and metabolic disorders:

158. nodular goiter, tumors of the thyroid gland
169. tumors of the adrenal glands
172. tumors of the pituitary gland

XII) Diseases of the female reproductive system

227. ectopic pregnancy
236. injuries of the uterus and birth canal
238. ovarian apoplexy
240. congenital malformations of the female genital organs
242. benign and precancerous neoplasms of female genital organs
246. mastitis
247. neoplasm of the mammary gland