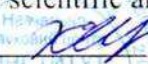


TARAS SHEVCHENKO NATIONAL UNIVERSITY OF KYIV

Educational scientific center «Institute of biology and medicine»

Department of fundamental medicine

«APPROVED BY»

Deputy director
on scientific and pedagogical work
 Kharchenko O.I.

«17» 06 2021y.



WORKING PROGRAM on the DISCIPLINE

CLINICAL ANATOMY AND OPERATIVE SURGERY

for students

branch of knowledge 22 «Healthcare»
specialty 222 «Medicine»
educational level «Master»
educational program «Medicine»
type of discipline obligatory

Form of study	<u>daytime</u>
The academic year	<u>2021 / 2022</u>
Semester	<u>4</u>
Number of credits ECTS	<u>3</u>
Language of teaching, learning and evaluation	<u>English</u>
Form of final control	<u>exam</u>

Teachers: associate professor, Ph.D. Prokopets K.O., associate professor, Ph.D. Selivanov S.S., associate professor, Ph.D. Selivanova O.V.

Prolonged: on the 20__ / 20__ of the year _____ (_____) " _____ " _____ 20__
(signature, name, date)

on the 20__ / 20__ of the year _____ (_____) " _____ " _____ 20__
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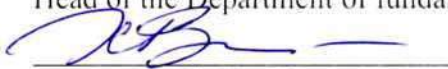
KYIV – 2021

Developed by:

Prokopets K.O., associate professor, Ph.D., associate professor of the Department of fundamental medicine

"APPROVED"


Head of the Department of fundamental medicine

 (Hoperiya V.G.)
(signature)

Protocol № 10 " 26 " 05 2021 y.

**Approved by scientific and methodical commission
ESC "Institute of Biology and Medicine"
Taras Shevchenko National University of Kyiv**

Protocol " 17 " 06 2021 year № 7

Head of scientific and methodical commission  (Skrypnyk N.V.)

« 17 » 06 2021 year

1. The purpose of the discipline is the acquisition by each student of specific knowledge of clinical anatomy necessary for substantiation of a clinical diagnosis, understanding of the pathogenesis of various diseases, the development of possible complications, as well as the choice of the most rational methods of surgical interventions, mastery of technical techniques and skills of surgical operations.

2. Preliminary requirements for mastering or choosing a discipline:

1 Successful mastering of the disciplines "Histology, cytology and embryology", "Human physiology and anatomy", "Medical biology", "Medical chemistry", "Bioorganic and biological chemistry", "Medical and biological physics", "Microbiology, virology and immunology".

2 Ability to independently apply knowledge of physiology and anatomy of man, histology of cytology and embryology, medical biology, etc. educational disciplines for the solution of specific scientific and practical tasks; work with scientific and methodological literature.

3 Possessing elementary skills of system analysis.

3. Discipline abstract:

The academic discipline "Clinical anatomy and operative surgery" is a part of the program of professional training of specialists of educational level "Master" of the branch of knowledge 22 "Health care" of the specialty 222 "Medicine" of the educational qualification level "Master of Medicine" of professional qualification "doctor" for the educational program "Medicine" and provides for students to acquire knowledge of clinical anatomy of sites, organs and systems of the human body; the formation of skills to apply knowledge in the field of clinical medicine to substantiate the clinical diagnosis, explain the features of the course of pathological processes, the solution of diagnostic and surgical tasks.

The subject of studying the discipline "Clinical anatomy and operative surgery" is a clinical anatomy of the parts of the human body and its organs and systems, as well as the principles and methods of surgical interventions.

1. 4. Tasks (educational purposes):

1. formation of knowledge of clinical anatomy of sites, organs and systems of the human body;
2. the ability to interpret topographic anatomical relationships from the positions of variational and age-related clinical anatomy;
3. formation of skills to apply knowledge of clinical anatomy to substantiate the diagnosis and understanding the pathogenesis of various pathological processes;
4. formation of the ability to select the most rational methods of surgical intervention;
5. possession of the technique of performing basic surgical interventions.

According to the requirements of the Standard of Higher Education of Ukraine the second (master's) level of higher education (the sixth level of the NQF of Ukraine), the branch of knowledge 22 "Health", specialty 222 "Medicine") discipline ensures the acquisition of education of the following competencies:

integral:

- Ability to solve complex tasks and problems in the field of health care and on studying process which involves conducting research and/or realization of innovations and is characterized by uncertainty of conditions and requirements.

general:

- GC1. Ability to think abstractly, analyze and synthesize.

- GC5. The ability to adapt and act in a new situation.
- GC6. Ability to make informed decisions.
- GC7. The ability to work as a team.

professional:

- PC6. The ability to determine the principles and nature of the treatment of diseases.
- PC10. Ability to conduct evacuation activities.
- PC11. Skills of performing medical manipulations.
- PC13. Ability to carry out sanitary and hygienic and preventive measures.

5 Results of studying in a discipline:

Results of studying (1. to know; 2. to be able; 3. communication; 4 autonomy and responsibility)		Forms (and / or methods and technologies) of teaching and learning	Methods of evaluation	Percentage in the final evaluation of the discipline
Code	Learning outcomes			
1.1.	The general principle of the layered structure of the human body	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.2.	Clinical anatomy of parts of the human body	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.3.	Clinical anatomy of the internal organs of human body	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.4.	Clinical anatomy of cellular spaces, vascular-nerve bundles	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.5.	Clinical anatomy of the skull, spine	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.6.	Clinical anatomy of the upper and lower extremities	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.7.	Collateral circulation in case of violation of the patency of major blood vessels; intra- and inter-system arterial anastomosis; intra- and intersystem venous anastomoses	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
1.8.	Age and individual features of structure, form, topography and syntopy of internal organs and other anatomical formations	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5

1.9.	Basic principles and techniques of the use of surgical instruments; the principles of primary surgical wound treatment main stages and principles of performing surgical interventions	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.1.	Demonstrate and describe clinical anatomy of human body parts, internal organs, cellular spaces, vascular nervous beams	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.2.	Demonstrate and describe the clinical anatomy of the skull, spine, upper and lower extremities	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.3.	Use knowledge of clinical anatomy to substantiate the diagnosis of various pathological conditions	lecture practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.4.	Use knowledge of clinical anatomy for substantiation of pathogenic mechanisms of development of various pathological conditions	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; exam	5
2.5.	Have the technique and principles of the using of basic surgical instruments	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.6.	Have the basic principles of primary surgical wound treatment	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.7.	Use knowledge of clinical anatomy to choose a method of surgical intervention	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5

2.8.	Have the technique of performing basic surgical interventions	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
2.9.	Use knowledge of clinical anatomy to prevent intra- and postoperative complications due to age and individual features of the structure of sites, internal organs and other anatomical formations	lecture, practical lesson, independent work	module control work 1, 2, 3; assessment of oral / written answers; assessment of demonstration of possession of practical skills; exam	5
3.1.	Demonstrate dialogue in dialogue with colleagues and target audience, conducting professional scientific discussion;	practical lesson, independent work	assessment of oral / written answers; exam	3
3.2.	Present the results of their research in English	practical lesson, independent work	assessment of presentation; exam	3
4.1.	Be guided by fundamental questions and clinical anatomy and operative surgery; to conduct selection and analysis of modern literature on this medical field, use it, as well as data processing programs for planning, obtaining and analyzing the results of its own research work	practical lesson, independent work	assessment of presentation; exam	4

7. Scheme of evaluation formation.

7.1. Assessment forms for students:

- semester assessment:

1. *Module control work 1 - LO 1.1 - 2.9. – 8 /4 points*
2. *Module control work 2 - LO 1.1 - 2.9. – 8 /4 points*
3. *Module control work 3 - LO 1.1 - 2.9. – 8 /4 points*
4. *Assessment of oral / written answers - LO 1.1. - 3.1 – 30 /15 points*
5. *Assessment of presentation – LO 3.2., 4.1. – 3 /1,5 points*
6. *Assessment of demonstration of possession of practical skills – LO 1.9., 2.1. – 2.3., 2.5 – 2.9. - 3 /1,5 points*

- final evaluation: in the form of the exam

Exam: LO 1.1. – 4.1. – 40 /24 points

The total score from the educational component as a whole, the final form of examination for which the exam is established, is defined as the sum of marks (marks) for all successfully evaluated learning outcomes during the semester (grades below the minimum threshold are not added to the final score) and the score obtained during exam.

The exam form is a test control. The results of the training, which are evaluated in the test control work, are LO 1.1-4.1. The maximum number of points that can be obtained by an examiner during the exam is 40 points per 100 ball scale. The results of the exam are considered unsatisfactory if the student scores a score equal to 60 or less percent of the maximum number of points for the exam - 24 points, in which case the score for the exam is -0 points.

It is not allowed to complete the semester control in order to improve the positive assessment.

- admission conditions for the final exam:

Mandatory admission to the exam is the completion of all practical classes and the writing of modular control works. An apprentice is not allowed to take an exam if he has scored less than 30 points during the semester.

7.2. Organization of evaluation:

Module control works 1, 2 and 3 are carried out at the end of thematic lectures and practical classes from Sections 1, 2 and 3, respectively.

The assessment of oral answers is carried out during the semester during practical classes.

7.3. Validity scale

Excellent	90-100
Good	75-89
Satisfactory	60-74
Poor	0-59

Structure of the discipline.

Thematic plan of lectures, practical classes and independent work

		Number of hours			
		Lectures	Practical classes	Independent work	Consultations
<i>Section 1: Introduction to clinical anatomy and operative surgery. Clinical anatomy and operative surgery of the head and neck</i>					
Lectures:					
1	Introduction to clinical anatomy and operative surgery. Clinical anatomy and operative surgery of the head and neck	2			
Practical classes:					
2	Surgical instruments and suture material		3		
3	Primary surgical technique		3		
4	Clinical anatomy and operative surgery of the brain part of the head		2		
5	Clinical anatomy and operative surgery of the facial part of the head		2		
6	Clinical anatomy and operative surgery of the neck		2		
Independent work:					
7	Subject field and tasks of operative surgery. Classification of surgical operations. Stages of surgical interventions. Principles of surgical interventions			3	

8	Technique of disconnecting and connecting tissues. Principles of primary surgical treatment of wounds. Methods of local anesthesia			3	
9	Features of brain wounds of the head. Principles of primary treatment of wounds of the cerebral part of the head. Epidural, subdural and subarachnoidal hematomas: Principles of surgery. Skull trepanation. Anthrotomy			3	
10	Features of wounds of the facial part of the head. Principles of primary treatment of wounds of the facial part of the head. Operations in case of inflammatory and purulent processes of the face			3	
11	Features of neck wounds. Principles of primary treatment of neck wounds. Vagosympathetic block. Tracheostomy: upper and lower. Operations on the thyroid gland (subtotal subcapsular resection by O. Nikolayev)			3	

Section 2: Clinical anatomy and operative surgery of the chest and abdomen

Lectures:

12	Clinical anatomy and operative surgery of the chest	2			
13	Clinical anatomy and operative surgery of the abdominal cavity	2			
14	Clinical anatomy and operative surgery of the lumbar region and retroperitoneal space	2			

Practical training:

15	Clinical anatomy and operative surgery of the chest		3		
16	Clinical anatomy of the anterolateral abdominal wall. Surgical accesses to abdominal organs. Operative surgery of abdominal hernias		2		
17	Clinical anatomy of the peritoneum. Intestinal sutures		2		
18	Clinical anatomy and operative surgery of the abdominal organs		2		
19	Clinical anatomy and operative surgery of the lumbar region. Surgical accesses to kidneys, ureters, suprarenal glands. Perirenal vagosympathetic block by A.V. Vyshnevsky. Surgery of the kidneys and ureters		3		

Independent work:

20	Rib resection. Mastitis and its surgical treatment. Methods of drainage of the pleural cavity. Types of pneumothorax. Surgery in case of heart injury. Congenital and acquired heart defects, the principles of their surgical treatment. Coronary artery bypass grafting, stenting			3	
21	Classification of hernias. General structure of external hernias. Congenital inguinal hernia. Inguinal hernia. Femoral hernia. Operative treatment of congenital, strangulated and sliding hernia. Operative treatment of femoral hernia. Hernia of the white line of the abdomen. Omphalocele. Operation with umbilical hernia and hernia of the white abdominal line			3	
22	Types of enteroanastomosis: end to end, side to side, end to side			3	

23	Gastric surgery: dissection, seam, gastrostomy, gastroenterostomy, resection and organ-saving operations. Operations on the liver, gallbladder, biliary tract. Operation on the colon. Laparoscopic surgery			3	
24	Operations on the pancreas. Operations on the abdominal aorta and inferior vena cava			3	
Section 3: Clinical anatomy and operative surgery of the pelvis and limbs					
Lectures:					
25	Clinical anatomy and operative surgery of the pelvis and extremities	2			
Practical training:					
26	Clinical anatomy of the pelvis		2		
27	Operative pelvic surgery		2		
28	Clinical anatomy of the upper extremity		2		
29	Clinical anatomy of the lower extremity		2		
30	Operative surgery of the extremities		2		
Independent work:					
31	Ways of spreading of purulent processes in the pelvis			3	

32	Bladder puncture. Epicystostomy. Complications. Classification of paraproctitis. Principles of operations for paraproctitis. Cesarean section. Operations for ectopic pregnancy. Surgery for hemorrhoids			3	
33	Ways of spreading of purulent processes in the upper extremity			3	
34	Ways of spreading purulent processes in the lower extremity			3	
35	Access to the axillary, subclavian, brachial, radial and elbow arteries. Cuts for opening panaritiums, phlegmons of the hand and forearm. Access to the vessels and nerves in the thigh, the tibia and the foot. Cuts for treatment phlegmons of the foot and legs			3	
36	Consultations				1
TOTAL:		10	34	45	1

Total volume 90 hours, including:

Lectures - 10 hours

Practical classes - 34 hours

Consultations - 1hour

Independent work - 45 hours

9 Recommended sources:

Basic:

1. Moore K.L. Clinically orientated anatomy / K.L. Moore, A.M.R. Agur, A.F. Dalley. - Philadelphia: Lippincott Williams & Wilkins, Wolters Kluwer, cop., 2014. - 1134 p.
2. Netter F.H. Atlas of human anatomy / F.H Netter, S. Colacino. - Summit, N.J.: Ciba-Geigy corp., 1989. - 514 p.
3. Skandalakis J.E. Surgical anatomy and embryology / J.E. Skandalakis, J.-B. Flament. - Philadelphia: W.B. Saunders Co., 2000. - 441 p.
4. Zollinger R.M., Zollinger R. Jr., Ellison E.C.. Zollinger's atlas of surgical operations / Robert M. Zollinger, Robert Zollinger Jr., E. Christopher Ellison. – N.-Y.: McGraw-Hill Prof Med/Tech, 2010. – 532 p.

Additional:

1. Skandalakis J.E. Skandalakis' Surgical anatomy: the embryologic and anatomic basis of modern surgery / J.E. Skandalakis, G.L. Colborn. - Athens, Greece: PMP, 2004. - 1720 p.
2. Hoperia V., Yershov V., Prockopets K., Yatsina O., Selivanov S. Clinical anatomy and operative surgery. Introduction to clinical anatomy and operative surgery. Clinical anatomy and operative surgery of head and neck: study guide for medical students / V.Hoperia, V.Yershov, K.Prockopets and etc.. – Kyiv: Publishing and Polygraphic Centre «Kyiv University», 2020. – 143 p.

Internet resources:

Links to webresources of periodicals

- <http://hirurgiya.com.ua/ru/arhiv/arhiv-2014.html>
- http://www.nbu.gov.ua/portal/chem_biol/kaoch/texts.html
- <http://www.surgery.by/index.LOp?LOPSESSID=b8ddc89a45b4c6cac852df29c33ebac5&lang=en&content=0>
- <http://www.umj.com.ua/>
- <http://www.recipe.by/>
- <http://www.bsmu.edu.ua/files/CAS/>
- <http://www.surgeryadvance.com/>
- <https://sites.google.com/view/knucaos-eng/main>
- <https://classroom.google.com/c/OTA0ODA3OTkwMzla>

Links to libraries and their resources:

- <http://www.worldcat.org/>
- <http://youalib.com/>
- <http://elibrary.ru/defaultx.asp>
- <http://www.biomedcentral.com/journals/bysubject>
- <http://worldwidescience.org/>