Ministry of Healthcare of Ukraine
Poltava state medical university

Department of surgery № 2

«AGREED»
Guarantor of the academic program
in specialty 222 «Medicine»

_____ I. Skrypnyk

“_____”_____2023 year.

«APPROVED»
Chairman of the Academic Council of the
Faculty № 1

_____ M. Riabushko

Minutes as of _____ 2023 No.__

SYLLABUS

Surgery, including pediatric surgery, neurosurgery
(title of the academic discipline)
Compulsory discipline
(compulsory / selective discipline)

academic and professional level	the second (master's) level of higher education
field of knowledge	22 «Healthcare»
specialty	222 «Medicine»
academic qualification	Master of Medicine
professional qualification	Medical Doctor
academic and professional program	222 «Medicine»
mode of study	full-time
course(s) and semester(s) of study of the discipline	V course, IX semester

Module 2 “Pediatric surgery”

«**RESOLVED»**
at the meeting of the Department of surgery № 2

Head of the Department _____ V. Sheiko

Minutes as of _____ 2023 No.

Poltava – 2023

INFORMATION ABOUT LECTURERS WHO DELIVER THE ACADEMIC DISCIPLINE

Surname, name, patronymic of the lecturer (lecturers), scientific degree, academic title	Ksonz Ihor Volodymyrovych Doctor of Medicine, Professor Grytsenko Ievgen Mykolayovych PhD, Associate Professor Ovchar Oleg Volodymyrovych Pylypiuk Yevhen Viktorovych
Profile of the lecturer (lecturers)	https://surgery-two.pdmu.edu.ua/team
Contact phone	Grytsenko Ievgen Mykolayovych (066) 7137283 Ovchar Oleg Volodymyrovych (095) 7714726 Pylypiuk Yevhen Viktorovych (066) 4166477
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Department page at the website of PSMU	https://surgery-two.pdmu.edu.ua

MAIN CHARACTERISTICS OF THE ACADEMIC DISCIPLINE

The scope of the academic discipline (module)

Number of credits / hours – 1,5/ 45, of which:
Lectures (hours) – 4
Practical classes (hours) – 20
Self-directed work (hours) – 21
Type of control – Pediatric surgery – final module control (FMC)

The policy of the academic discipline

The policy of the academic discipline is regulated by a system of requirements that a lecturer imposes on a recipient for higher education (further - recipient) in the study of the discipline and is based on the principles of academic integrity.

Recipients are required to attend all the classroom activities (lectures and practical classes). Delays are unacceptable. Medical clothing (medical gown, cap, change shoes) and a personal stethoscope are required. Rules of conduct at classes are: active participation of recipient, fulfillment of the required minimum of educational work, switching off phones during the class, incentives and penalties (in what cases points can be accrued or deducted, etc.).

It is recommended to develop the policy of academic discipline taking into account the norms of the legislation of Ukraine on academic integrity, the Statute, the Regulations of PSMU and other normative documents.

When organizing the educational process at PSMU, lecturers and recipients act in accordance with:

- Regulation on the organization of the educational process at Poltava state medical university (https://www.pdmu.edu.ua/storage/department-npr/docs_links/65GC4bRqLembOGlI7xon3ISIR7hQtFXcxUrSjdCA.pdf)
- Regulation on the academic integrity of recipients of higher education and employees of Poltava state medical university (https://www.pdmu.edu.ua/storage/sections_nv/docs_links/Sj670MBVmC9qGVuTmHU8k9ZGKuX3DlzIwRNr8pBu.pdf)
- Internal code of conduct for recipients of Poltava state medical university (https://www.pdmu.edu.ua/storage/department-npr/docs_links/OaN2nwysLPFAUDRvuDPvFSpzM1j9E9CwQQkgr93b.pdf)
- Regulation on the organization of self-directed work of recipients at Poltava state medical university (https://www.pdmu.edu.ua/storage/basic_pages/docs/bf7cHeVZuJJew2ZIMYkxkIVC7ib6LdHMTa2bQttX.pdf)
- Regulation on retaking missed classes and making up unsatisfactory grades by the recipients of higher education at Poltava state medical university (https://www.pdmu.edu.ua/storage/department-npr/docs_links/d2v3WhcBOWnuedYRoBKRe7k1xnl4KtbB2r2NR2CG.pdf)
- Regulation on the procedure of forming the individual educational trajectories for the recipients of higher education at Poltava state medical university (https://www.pdmu.edu.ua/storage/basic_pages/docs/MRpYKrzEpBlfiu2LYjYAHuM9d8YJibtPVMTJDRRD.pdf)
- Regulation on the procedure of credit transfer for academic disciplines and calculation of academic difference (https://www.pdmu.edu.ua/storage/department-npr/docs_links/BGUZVLhZvFmIMvpYzHnEFfb9IIwhTrEjOaaFdpTd.pdf)
- Regulation on the appeal claim for the results of final control of academic performance for recipients of higher education (https://www.pdmu.edu.ua/storage/department-npr/docs_links/DDgFa7zhzJAcNHnKamWyKPDd1P2msJNfrEAv36Bu.pdf)
- Regulation on rating the recipients of higher education at Poltava state medical university(https://www.umsa.edu.ua/storage/department-npr/docs_links/wWPlR7Hyj5fbvBsmPqLqR9nB5RTIDUkPuyDtsEJp.pdf)
- Regulation on the financial incentives for academic success of recipients at Poltava state medical university (https://www.pdmu.edu.ua/storage/department-npr/docs_links/RmhZx0Lx1V0c6zZkg1mCkcW6omo3enMM4uB6C5bT.pdf) and others.

Course description. Mastering the discipline "Pediatric surgery" is important for future professional medical activity, as it allows to determine the etiologic and pathogenetic factors of surgical diseases of childhood (urgent surgical pathology of childhood, tumors in children), to classify and analyze a typical clinical picture, analyze and plan of additional examinations at the typical course of the disease, to demonstrate mastery of the principles of treatment, rehabilitation and prevention of diseases, to diagnose and to provide emergency assistance in major emergencies, to carry out differential diagnosis and to make a preliminary diagnosis at the typical course of the disease, to evaluate the prognosis of the disease, to demonstrate the possession of moral

and deontological principles of a medical specialist and the principles of professional subordination in pediatric surgery.

Pre-requisites and post-requisites of the academic discipline

Module 2 "Pediatric surgery" is based on previous study by applicants of human anatomy, histology, embryology and cytology, medical biology, medical chemistry, biological and bioorganic chemistry, medical physics, microbiology, virology, immunology, pharmacology, pathophysiology, pathomorphology and surgery.

Knowledge, obtained after studying this course will help recipients in further professional activity.

Competences and learning outcomes in accordance with the educational and professional program, formation of which is facilitated by the discipline (integral, general, special).

The aim and tasks of the academic discipline:

In accordance with the requirements of the Standard, the discipline ensures that recipients acquire competences:

- Integral competences: the ability to solve typical and complex specialized tasks and practical problems in a health care professional activity or in a learning process that involves research and/or innovation and characterized by the complexity and uncertainty of conditions and requirements.

- General competences:

1. Ability to think abstractly, analyze and synthesize.
2. The ability to apply knowledge in practical situations.
3. Knowledge and understanding of the subject area and understanding of professional activity.
4. Ability to communicate by the official language, both orally and in writing; ability to communicate by a foreign language.
5. Skills in using information and communication technologies.
6. The ability to learn and master modern knowledge.
7. Ability to search, process and analyze information from various sources.
8. The ability to be critical and self-critical.
9. The ability to adapt and act in a new situation; the ability to generate new ideas (creativity).
10. Definition and perseverance of the tasks and responsibilities.
11. Ability to make informed decisions; ability to work in a team; interpersonal skills.
12. The ability to act socially responsible and consciously.

- Special competences:

1. To collect data on patient complaints, medical history, medical history of living in a health care department, using the results of interviews with the patient and parents, according to a standard patient survey scheme.

2. To conduct an objective examination of children of different ages:

- to collect complaints in a child with urgent surgical pathology, tumors of tissues, to allocate them to the syndromes and symptoms characteristic of this nosological form;
- to evaluate anamnestic data, to identify the moments characteristic of the disease;
- to evaluate the general condition, to determine the reasons that causes the severity of the condition;
- be able to diagnose in accordance with conventional classification;
- appoint an examination to verify the diagnosis;
- evaluate the data of laboratory and instrumental studies;
- determine the tactics of patient management;
- determine the conditions of care for the patient;
- to choose and prescribe the appropriate nosological form of treatment (including the ability to determine the indications for surgery, to know its course, to choose the method of administration of the drug, the calculation of the dose, the ability to write a prescription);
- identify measures for the prevention of the development of complications, disease recurrences, measures aimed at the full recovery of a sick child.

Thematic plan of lectures (by modules), specifying the basic issues, which are considered at the lecture

Seq. No.	Title of the topic	Number of hours
	Module 2. Pediatric surgery_____	
1	**Inflammatory diseases of abdominal cavity organs. Acquired intestinal obstruction.**	2
2	**Purulent-septic pathology in children. Tumors in children.**	2
	Total	4

Thematic plan of seminar classes by modules and content modules, specifying the basic issues, which are considered at the seminar class

Seq. No.	Title of the topic	Number of hours
	Not applicable by the study program	

Thematic plan of practical classes by modules and content modules, specifying the basic issues, which are considered at the practical class

Seq. No.	Name of topics	Number of hours

Module 2. Pediatric surgery.		
1.	**Inflammatory diseases of the abdominal cavity organs. Acute appendicitis in children.** 1. Current views on the etiology and pathogenesis of acute appendicitis. 2. Features of the structure of the abdominal cavity and appendix, which determine the clinical course of appendicitis in children. 3. Features of acute appendicitis in young children (up to 3 years). 4. Features of the examination of young children with suspected acute appendicitis. 5. Differential diagnosis of acute appendicitis. 6. Atypical forms of acute appendicitis. Features of the clinic and diagnostics. 7. Supportive methods of examination of children with suspected acute appendicitis, their informative and diagnostic value. 8. Open and laparoscopic appendectomy: advantages and disadvantages.	2
2.	**Inflammatory diseases of the abdominal organs. Peritonitis in children: appendicular, diplococcus peritonitis, neonatal peritonitis.** 1. Complicated forms of acute appendicitis: appendicular infiltrate, abscess, peritonitis. 2. Primary peritonitis. 3. Peritonitis of newborns. 4. Necrotizing enterocolitis(NEC). Causes, clinical classification. 5. Surgical complications. Principles of surgical treatment. 6. Features of NEC in infants with extremely low body weight. 7. Clinic. Post-operative rehabilitation.	2
3.	**Bleeding from the digestive system. Portal hypertension.** 1. Features of the clinic and differential diagnosis of gastrointestinal bleeding in children with - gastrointestinal reflux, - hemorrhagic gastritis, - portal hypertension, - ulcers of the stomach, 12 duodenum, - Meckel diverticulitis, - polyps and polyposis of the intestine (Peitz-Egers disease). 2. Portal hypertension, its causes, forms of portal hypertension? 3. Characteristic signs of portal hypertension in children. 4. Methods of diagnosis of portal hypertension. 5. Conservative and operative methods of interruption of bleeding at portal hypertension in children. 6. Options for surgery, reconstruction and transplantation of organs - liver and intestines.	2
4.	**Acquired intestinal obstruction: dynamic, connective intestinal obstruction, intussusception of bowels.**	2

	1. Classification of intestinal obstruction in children 2. The main causes of spastic and paralytic bowel obstruction. 3. Classification, pathogenesis, prevention of postoperative connective bowel obstruction. 4. Principles of the treatment of connective bowel obstruction. 5. Etiology, pathogenesis, clinic, diagnosis of idiopathic intussusception of bowels in children. 6. Differential diagnostics with infectious diseases. 7. Indications for conservative and surgical treatment, prevention of complications. 8. Short bowel syndrome. Principles of bowel transplantation.	
5.	**Trauma in children. Trauma of the chest. Closed abdominal trauma** 1. Traumatic disease; traumatic shock. Syndrome of mutual aggravation, types of traumatic injuries. Severity of traumatic shock: diagnostic criteria, first aid. 2. Trauma of the chest and organs of the chest cavity. Definition of basic concepts. Etiology. Pathogenesis. Classification. Clinic. Psychological features of patients. Course. Complication. Research methods, diagnostics, differential diagnostics. Surgical tactics. Principles of surgical treatment. Methods of surgical interventions. Tracheobronchial tree remediation methods. Puncture of the pleural cavity. Drainage of the pleural cavity. 3. Damage to the esophagus, burns and foreign bodies. Rehabilitation of patients. 4. Closed trauma of the abdominal organs: Trauma of the hollow organs: mechanism of trauma, clinical manifestations, diagnostic algorithm, emergency care. Principles of surgical treatment. 5. Closed injury of abdominal organs: Trauma of parenchymatous organs: injury of liver, spleen Signs of intra-abdominal bleeding. Indications for conservative and surgical treatment. 6. Pancreatic Injury Pancreatic pseudocyst, traumatic pancreatitis. 7. Hemobilia. Diagnosis, principles of treatment.	2
6.	**Injury of the organs of the urinary system. Swollen wick syndrome. Urolithiasis.** 1. Traumatic damage to the kidneys. Epidemiology and mechanism of trauma. Clinical manifestations. Diagnostic algorithm. Emergency aid. 2. Traumatic damage to the bladder. Clinical manifestations and principles of treatment of extraperitoneal and intraperitoneal rupture of the bladder. 3. Traumatic injury of the urethra. Epidemiology and mechanism of injury. Clinical manifestations. Diagnostic algorithm. Emergency aid. 4. Scrotal edema syndrome; torsion of Morgan'i hydatid(s); torsion of spermatic cord and testis; acute hydrocele; injury to the	2

	organs of the scrotum; orchitis, orchoepidymitis. Ethiopathogenesis, clinical manifestations, differential diagnosis, principles of treatment and prevention. 5. Features of pathogenesis, clinical manifestations and diagnosis of urolithiasis in children. 6. Principles of conservative and surgical treatment of urolithiasis in children.	
7.	**Purulent-septic pathology in children. Purulent diseases of the lungs and pleura**. 1. Purulent diseases of the lungs, pleura and intercostal space. 2. Acute destructive pneumonia (ADP), intra-pulmonary forms. 3. Acute destructive pneumonia (ADP) (pulmonary pleural form): pyothorax, pyopneumothorax, pneumothorax. 4. Classification, etiopathogenesis, diagnosis, conservative, instrumental and surgical treatment. 5. Complications, their prevention. 6. Mediastinitis. Causes, pathogenesis, clinical manifestations, diagnosis, conservative and surgical treatment, complications, prognosis	2
8.	**Purulent-septic pathology in children. Purulent diseases of the bones and joints. Purulent diseases of soft tissues.** 1. Surgical sepsis. Syndrome of systemic response to inflammation. Sepsis. Septic shock. Syndrome of multiple organ failure. 2. Basics of antibacterial therapy in children. 3. Acute hematogenous osteomyelitis 4. Metaepiphyseal osteomyelitis of newborn. 5. Atypical forms of osteomyelitis (Brody abscess, antibiotic osteomyelitis, sclerosing osteomyelitis Garre) 6. TBT-ostitis. 7. Ethiopathogenesis, classification, clinic, features of diagnostics, principles of treatment, features of surgical interventions of children of different age groups, prevention of complications. Dispensary.	2
9.	**Benign and malignant soft tissue tumors. Benign tumors and malignant bone tumors. Nephro- and neuroblastoma.** 1. Benign and malignant tumors, embryonic tumors. 2. Teratoma, teratoblastoma; 3. Nephroblastoma; 4. Neuroblastoma; 5. Leyo-, rhabdomyosarcoma, pigment tumors; 6. Tumors and cysts of bones. 7. Tumors of the liver: benign (hemangioma, hamartoma, hepatocellular adenoma) and malignant (hepatoblastoma, hepatocellular carcinoma). 8. Vascular abnormalities: vascular tumors (hemangioma);	2

	vascular malformations (capillary, venous, lymphatic, arterial, mixed).	
10.	**Final class. Control tests.**	2
	Total	20

Self-directed work

Seq. No.	Title of the topic	Number of hours
1	Preparing to the practical lessons	18
2	Preparation for final module control	3
	Total	21

Individual task.

1. Participation in the work of the student scientific circle and appearances in scientific forums.
2. Participation in student Olympiad in discipline.
3. Selection of literature on relevant topics of the discipline.
4. Selection of visual materials from the sections of the discipline.

List of theoretical questions for preparing students for final module control
Module 2. "Pediatric surgery"

1. Spleen injury: classification, clinical manifestations.
2. The main clinical symptoms of idiopathic intussusception in children.
3. Features of acute appendicitis in young children (up to 3 years).
4. Give a definition of swollen scrotum syndrome. Name the inflammatory and non-inflammatory diseases that are manifested by swollen scrotum syndrome.
5. What is the cause of bleeding from the Meckel diverticulum?
6. Bladder injury: mechanism, classification.

7. Differential diagnosis of mastitis and physiological swelling of mammary glands in newborns.
8. Clinical manifestations, additional methods of examination, and principles of treatment of Morgan'i hydatid torsion in children.
9. Typical x-ray features of long-bones acute hematogenous osteomyelitis (AHO).
10. Classification of intestinal obstruction in children.
11. Diagnosis and treatment of appendicular infiltrate.
12. Pneumothorax. Clinic, physical and radiological diagnostics, first aid.
13. Neuroblastoma: definition, typical anatomical localization, clinical manifestations.
14. Nephroblastoma (Wilms tumor): definitions, clinical manifestations, association with other disorders of embryogenesis.
15. Differential diagnosis of retroperitoneal neuroblastoma and nephroblastoma (Wilms tumor).
16. What malignant bone tumors are most common in childhood?
17. Hemangioma: definition, classification, clinical manifestations.
18. Treatment tactics for hemangiomas in children.
19. Lymphatic malformations: definition, classification, clinical manifestations.
20. Features of childhood oncology. General principles of diagnosis and treatment of malignancies in children.
21. From what precursor tissues does soft tissue sarcoma develop of?
22. Dermoid cyst: definition, typical localization, clinical manifestations, treatment principles.
23. The acronym ABCD (assymetry, borders (bleed), change, diameter).
24. Types and clinical manifestations of benign pigmented neoplasms of the skin.

List of practical skills for final module control
Module 2. “Pediatric Surgery”

1. Collection of anamnesis. Conducting examination of the patient, palpation, auscultation.

2. Description of objective status and definition of clinical and radiological symptoms in major surgical diseases.

3. Justification of the examination and treatment plan.

4. Preparation of the plan of examination and treatment.

5. Determination of indications and contraindications for surgery, features of postoperative management.

6. Determination of blood group and rhesus factor.

7. Venous puncture, venesection, intramuscular, intravenous and subcutaneous injections.

8. Temporary stop of bleeding.

9. Restoration of airway patency.

10. Fixation of the tongue.

11. Carrying out artificial ventilation of the lungs "mouth to mouth", "mouth to nose" (on the mannequin).

12. Indirect heart massage (on the mannequin).

13. Performing puncture of the pleural cavity, joints in infants, hematomas, pus and long tubular bones, measurement of intraosseous pressure.

14. Performing laparocentesis, laparoscopy.

15. Carrying out of novocaine blockades.

16. Imposition of aseptic, burn, correcting gypsum dressings.

17. Cutting of pus, panaritium, primary surgical treatment of wounds, imposition and removal of sutures.

18. Gastric lavage. Performing of enemas.

19. Providing a finger examination of the rectum, examination of it in mirrors, evaluation of data.

20. First aid for shock, insect bites, colic, drowning, sudden cardiac arrest, bleeding.

21. Bladder catheterization.

22. Interpretation of radiographs, blood, urine, gastric data content and more.

23. Registration of medical documentation of surgical patients.

24. Methods of endoscopic diagnosis and endoscopic surgery on abdominal and chest organs.

Teaching methods

- verbal (lectures cover the basic theoretical material of a single or several topics of the discipline, reveal the main problematic issues of the relevant sections of pediatrics, practical classes provide detailed consideration of recipients of certain theoretical provisions of the discipline with the teacher and the formation of skills and counseling of their practical;) are held to help recipients identify and explain difficult issues for self-mastering, solve complex problems, arising from the independent study of the training material in preparation for the practical training, the final module control);
- visual (demonstration of performing manipulations, excerpts of thematic patients, results of laboratory and instrumental examination methods, photographic materials);
- practical (practical classes);
- analysis of specific situations (case method);
- simulation tasks;
- presentations;
- job-oriented games.

Control methods

- oral control;
- written control;
- test control;
- practical check;
- self-control;
- self-esteem.

Types of control:

- the previous one;

- current;

- final module control.

Form of final control of the study process is final module control (FMC).

Evaluation of current educational activities is carried out by scientific and pedagogical employees during seminars and practical classes, industrial practice. The main purpose of current control is to provide feedback between the researcher and the graduate in the learning process and the formation of learning motivation of higher education. The information obtained during the current control is used both by the researcher and pedagogical worker - to adjust technologies, methods and teaching aids, and by higher education recipient - to plan independent work. Ongoing control can take the form of an oral interview, solving situational tasks, assessing the performance of manipulations, written control, written or software computer testing in practical classes, assessing the performance of higher education students in discussions at seminars, discussions, etc. Forms of current control and evaluation criteria are defined in the work program specifically for each discipline (Table 1).

Table 1. Standardized generalized criteria for assessing the knowledge of the recipients of higher education in PSMU

Grade on a 4-point scale	Grade of ECTS	Evaluation criteria
5 (Excellent)	A	Recipient shows special creative abilities, is able to acquire knowledge independently, without the help of a teacher finds and processes the necessary information, is able to use the acquired knowledge and skills to make decisions in unusual situations, convincingly argues answers, independently reveals their talents and inclinations, has at least 90% knowledge of the topic both during the survey and all types of control.
4 (Good)	B	Recipient is fluent in the studied amount of material, applies it in practice, freely solves exercises and problems in standardized situations, independently corrects errors, the number of which is insignificant, has at least 85% knowledge of the topic as during the survey , and all types of control.
	C	Recipient is able to compare, summarize, systematize information under the guidance of a scientific and pedagogical worker, in general, independently apply it in practice, control their own activities; to correct

		mistakes, among which there are significant ones, to choose arguments to confirm opinions, has at least 75% of knowledge on the topic both during the survey and all types of control.
3 (Satisfactory)	D	Recipient reproduces a significant part of the theoretical material, shows knowledge and understanding of the basic provisions with the help of research and teaching staff can analyze educational material, correct errors, among which there is a significant number of significant, has at least 65% knowledge of during the survey, and all types of control.
	E	Recipient has the educational material at a level higher than the initial, a significant part of it reproduces at the reproductive level has at least 60% knowledge of the topic both during the survey and all types of control.
2(Unsatisfacto-ry)	FX	Recipient has the material at the level of individual fragments, which make up a small part of the material, has less than 60% knowledge of the topic both during the survey and all types of control.
	F	Recipient has the material at the level of elementary recognition and reproduction of individual facts, elements, has less than 60% knowledge of the topic as during the survey, and all types of control.

The final module control is carried out upon completion of the study of the program material of the module in the discipline and is carried out, as a rule, at the last lesson of the module. Usually the number of modules in one discipline does not exceed three. Compilation and re-compilation of the final modular control is carried out in accordance with the "Regulations on the organization and methodology of assessment of educational activities of higher education in the Poltava state medical university". Applicants for higher education who have scored the required minimum number of points during the current control (average grade point average 3.0 and above), do not have missed vacancies for lectures, seminars and practical classes, have mastered the topics for independent work within the module and completed all requirements for each academic discipline, which are provided by the working curriculum for the discipline (protection of medical history, positive assessments of meaningful modules, received permission to compile final module control during the test control, etc.). The hours provided in the working curriculum are used for final module control. Final module control is accepted by scientific and pedagogical (pedagogical) employees appointed by the head of the department. In order to objectively impartial assessment of knowledge of higher education recipients, it is recommended to involve in the reception of final module control scientific and pedagogical staff of the department who did not conduct practical classes in these academic groups in this category of students. The final module control score is evaluated in points and is not converted into a traditional 4-point score. The maximum number of final module control points is 80 points. The minimum number of final module control points at which the control is considered completed is

50 points. The maximum number of points per module is 200 points (of which up to 120 points for current performance).

The assembly of FMC is in writing.

The module 2 ticket has the following structure:

1. 2 situational tasks, each with three questions. The correct answer to each question is estimated at 10 points, that is, for each task a student can get 30 points (10 · 3 = 30 points for a task, i.e. 2 tasks - 60 points).
2. Practical skill. The student must describe the algorithm of manipulation or give a comprehensive interpretation of the results of instrumental or laboratory tests. A score of 0-20 points.

The questions (tasks, situational tasks) that are submitted to the final module control should be formulated in such a way that the reference answer of the higher education recipient to each lasts approximately 3-5 minutes. The questions should cover the most important sections of the working curriculum, which are sufficiently covered in the literature sources recommended as the main (basic) in the study of the discipline. Examination tickets for final module control are formed on the issues, which are approved at the meeting of the department. The total number of questions (tasks, situational tasks) in each ticket should not exceed three. The FMC must be consisted of the questions, which are determined for self-study within the module. In case of violation by the applicant for higher education of the rules of academic integrity (p.2.2.5. Of the Rules of Procedure), the evaluation results obtained during the preparation of the final module control to the applicant for the answer is graded "unsatisfactory". Applicants for higher education who during the study of the module, which is the final control, had an average score of current performance from 4.50 to 5.0 are exempt from final module control and automatically (by consent) receive a final grade in accordance with table 2, with the presence of the applicant for higher education at the final module control is mandatory. In case of disagreement with the assessment, this category of higher education recipients pass final module control according to the general rules. The obtained points for the module are presented by the research and pedagogical worker in the "Statement of final module control" and the individual curriculum of the student.

Table 2. Unified table of correspondence of scores for current performance, scores for final module control, exam, and traditional four-point score.

Average score for current performance (A)	Points for current success in the module (A * 24)	Points for final module control from the module (A*16)	Points for the module and / or exam (A*24 + A*16)	Category ECTS	By 4-point scale
2	48	32	80	**F FX**	**2 unsatisfactory**
2,1	50	34	84		
2,15	52	34	86		
2,2	53	35	88		

2,25	54	36	90		
2,3	55	37	92		
2,35	56	38	94		
2,4	58	38	96		
2,45	59	39	98		
2,5	60	40	100		
2,55	61	41	102		
2,6	62	42	104		
2,65	64	42	106		
2,7	65	43	108		
2,75	66	44	110		
2,8	67	45	112		
2,85	68	46	114		
2,9	70	46	116		
2,95	71	47	118		
3	72	50	122	**E**	**3 satisfactory**
3,05	73	50	123		
3,1	74	50	124		
3,15	76	50	126		
3,2	77	51	128		
3,25	78	52	130	**D**	
3,3	79	53	132		
3,35	80	54	134		
3,4	82	54	136		
3,45	83	55	138		
3,5	84	56	140	**C**	**4 good**
3,55	85	57	142		
3,6	86	58	144		
3,65	88	58	146		
3,7	89	59	148		
3,75	90	60	150		
3,8	91	61	152		
3,85	92	62	154		
3,9	94	62	156		
3,95	95	63	158		
4	96	64	160	**B**	
4,05	97	65	162		
4,1	98	66	164		
4,15	100	66	166		
4,2	101	67	168		
4,25	102	68	170		
4,3	103	69	172		
4,35	104	70	174		
4,4	106	70	176		
4,45	107	71	178		

4,5	108	72	180	**A**	**5 excellent**
4,55	109	73	182		
4,6	110	74	184		
4,65	112	74	186		
4,7	113	75	188		
4,75	114	76	190		
4,8	115	77	192		
4,85	116	78	194		
4,9	118	78	196		
4,95	119	79	198		
5	120	80	200		

Information about recipients who are not enrolled in final module control, with the exact reason for non-enrollment is also included in the "Statement of final module control" and individual curriculum of students. The reasons for non-enrollment may be the following: a) the recipient for higher education has unfulfilled absences from classes and (or) lectures, industrial practice. Mark "n / v" (failed) in the column "points for final module control "; b) the recipieant for higher education attended all classes (practical, seminar, lecture), but did not score the minimum number of points for the current educational activity and is not allowed to final module control. Mark "n / a" (not allowed) in the column "points for final module control "; c) the recipient for higher education attended all classes, scored points for current educational activities and was admitted to the final module control, but did not appear at the final module control. The mark "n / z" (did not appear) in the column "points for final module control ". The recipient for higher education has the right to compile and re-compile final module control. Permission for reocompilation of final module control is issued by the dean, director of the university (or his deputy) in the form of "Personal statement of reorganization of final control" which the student receives in the dean's office under personal signature upon presentation of individual curriculum and (if necessary) information from the debt liquidation department. In the case of organized recompilation of the final module control by a group of applicants for higher education, the general statement is used. The personal list of rearrangement of the final modular control (general statement) is filled in by the head of the department or his authorized person in two copies, one of which remains at the department, the other is returned to the dean's office by the head of the educational part (responsible teacher). Applicants for higher education have the right to retake final module control, until the end of the study of the discipline. If the applicant for higher education has not passed the final module control, in the discipline, except for the semester control in the form of an exam, he(she) cannot be admitted to the semester control in the relevant discipline. An uncompiled final module control in one discipline is not a ground for not admitting a higher education applicant to take the final semester control in another discipline, except for admission to the final certification. If the discipline ends with a credit, the credit will be given only to those applicants who have attended all classes (or completed missed classes in the prescribed manner) and scored a convertible amount of points not less than the minimum (72 points). In the "Statement of final module control" in the column "Current control (points)" the researcher enters points after their conversion

from the average score according to table 2, in the column "Final control (points)" the teacher makes a record "credited". If the applicant has not passed at least one final module test before the beginning of the new semester, he receives for the discipline the traditional grade "2" and ECTS grade "F", which is the basis for deduction. With the permission of the rector or the first vice-rector of the university, individual applicants for higher education may be individually determined an additional term for compiling (re-compiling) the final module tests.

Methodological support

1 .Methodical development of lectures

2. Methodical instructions for independent work of students in the preparation for practical training and in class.

3. References.

4. Videos.

5. Multimedia presentations.

6. Tests from the Bank of the licensing exam "Step-2. General medical training ».

7. Tests of different difficulty levels.

8. Methodical materials presented on the page of the department on the PSMU website.

Recommended literature

Basic (available at the library of PSMU):

1. Pediatric Surgery: textbook / V.A. Dihtiar, V.I. Sushko, D.Yu. Kryvchenia et al. Видавництво: Всеукраїнське спеціалізоване видавництво «Медицина» Мова: англійська. Рік: 2019. Кількість сторінок: 368 + 14 кол. вклад. ISBN: 978-617-505-752-0

Additional:

2. ISBN 966-7733-51-3 ПЕДІАТРИЧНА ХІРУРГІЯ PEDIATRIC SURGERY Н. Г. Ніколаєва Навчальний посібник (англ. мовою)
3. Birth Defects Compendium. D. Bergsma (ed.). Second Edition. New York, 1979:987.
4. Jones KL. Smith’s Recognizable Patterns of Human Malformations. 6th edition. W.B. Sauders Company. Philadelphia. 2002:572.
5. Welch KJ, Randolph JG, Ravitch MM, O'Neill JA, Rowe MI. Pediatric Surgery. 4th edition. Chicago. Year Book Medical Publishers. 1986

6. Ashcraft KW, Holder TM. Pediatric Surgery. 2nd edition. Philadelphia. W.B. Saunders Co. 1993
7. An Illustrated Guide to Pediatric Surgery. Authors: Al-Salem, Ahmed H. – 2014. - 440 pages.
8. Ashcraft KW. Holder TM. Pediatric Esophageal Surgery. 1st edition. Orlando. Grune &Stratton, Inc. 1986.
9. Pediatric Surgery : textbook for medical students / V. B. Davidenko, S. Y. Shtyker, V. A. Belopaschentcev, Y. V. Paschenko, V. V. Vjun ; Kharkiv National Medical University. – Kharkiv : KhNMU, 2011. – 168 p.
10. Basics of intensive care handbook: methodical manual [for the 5th year students of medical faculty] / Belozerov I.V., Chernyaev N.S. – Kh.: V.N. Karazin Kharkiv National University, 2014. – 120 pp.
11. Basics of intensive care workbook: methodical manual [for the 5th year students of medical faculty] / Belozerov I.V., Chernyaev N.S. – Kh.: V.N. Karazin Kharkiv National University, 2014. – 40 pp.
12. Belozerov I.V., Safronov D.V. Methodological Instructions for the 5th year students. «Pediatric surgery» Part 1. — V.N. Karazin Kharkiv National University, Kharkiv,2014. – 75 pp.
13. Belozerov I.V., Safronov D.V. Methodological Instructions for the 5th year students.«Pediatric surgery» Part 2. — V.N. Karazin Kharkiv National University, Kharkiv,2014. – 85 pp.
14. Belozerov I.V., Safronov D.V. Methodological Instructions for the 5th year students. «Pediatric surgery». Workbook— V.N. Karazin Kharkiv National University, Kharkiv, 2014. – 55 pp.
15. Bodnar B. M., Khoma M. V., Vakhotskyi M. M., Bodnar H. B., Unguryan A. M. Brief manual on Pediatric Surgery. Chernivtsi. 2009.
16. Congenital Anomalies of the Penis. Authors: Fahmy, Mohamed - 2017. – 464 pages.
17. Consent in Pediatric Urology. Editors: Godbole, Prasad, Wilcox, Duncan T., Koyle, Martin A. – 2016. - 528 pages: illustrations
18. Coran AG: Vascular Access and Infusion Therapy. Seminars in Pediatric Surgery 1(3): 173-241, 1992
19. Fundamentals of Pediatric Surgery. Second Edition. Editors: Mattei, P., Nichol, P.F., Rollins, II, M.D., Muratore, C.S 2011. 480 pages: illustrations
20. Gans SL, Grosfeld Jay L: Current Concepts of Pediatric Oncology. Seminars in Pediatric Surgery 2(1): 1-82, 1993
21. Grosfeld JL. Common Problems in Pediatric Surgery. 1st edition. St Louis. Mosby Year Book. 1991
22. Jani J., Nicolaides K.H., Reller R.L. et al. Observed to expected lung area to head circumference ratio in the prediction of survival in fetuses with isolated diaphragmatic hernia.- Ultrasound Obstet. Gynecol.-2007.- Vol.30.- P.67-71.
23. Pediatric Kidney Disease. Editors: Geary, Denis F, Schaefer, Franz (Eds.) - 2016. - 562 pages.
24. Pediatric surgery: diagnosis and treatment. Responsibility Christopher P. Coppola, Alfred P. Kennedy, Jr., Ronald J. Scorpio, editors. Publication Cham: Springer, 2014. XXVIII, 482 pages: illustrations

Informational resources:

http://www.surgicalneed.nl/wp-content/uploads/2016/08/help_pedsurgeryafricavolume01.pdfhttps://www.academia.edu/19792343/Fundamentals_of_Pediatric_Surgery
https://www.academia.edu/36856852/Handbook_of_pediatric_surgery
https://medtextfree.wordpress.com/2012/02/22/pediatric-surgery-handbook/
https://www.pdfdrive.com/pediatric-surgery-e27401255.html
https://www.researchgate.net/publication/26116817_An_Aid_to_Paediatric_Surgery
https://www.researchgate.net/publication/325654406_Essentials_of_Pediatric_Surgery

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