

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра хірургії, травматології, ортопедії та фтизіатрії

PEDIATRIC SURGERY

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council

Protocol dated _____ № _____

Chairman of the Quality Council

Petrashenko Viktoriia
Oleksandrivna

DATA ON REVIEWS AND APPROVAL

Author

Ovechkin Denys Viacheslavovych

Review of the course descriptor	_____ _____
Considered and approved at the meeting of the work group of Study programme Медицина	Protocol dated _____ № _____ Head of the work group (Head of the Study programme) _____ Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра хірургії, травматології, ортопедії та фізіатрії	Protocol dated _____ № _____ Head of the Department _____ Duzhyi Ihor Dmytrovych

SYLLABUS

1. General information on the course

Full course name	Pediatric Surgery
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра хірургії, травматології, ортопедії та фтизіатрії
Author(s)	Ovechkin Denys Viacheslavovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	1 weeks across 11 semester
Workload	The discipline is 1.0 credits of ECTS, 30 hours, including 20 hours - work with the teacher (practical classes, classroom) and 10 hours - independent work of students.
Language(s)	English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	Human Anatomy, Human Physiology, Pathological Anatomy, Hospital Pediatrics, Pathophysiology, Krok-1, Biochemistry, Histology, Cytology and Embryology, General Surgery, Topographic Anatomy and Operative Surgery
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

The purpose of the discipline is to acquire theoretical and practical knowledge in the diagnosis, treatment, and rehabilitation of patients with congenital pediatric surgical pathology in compliance with the principles of medical ethics and deontology.

4. Contents

<p>Topic 1 Congenital intestinal obstruction</p> <ul style="list-style-type: none"> • Intestinal Obstruction in the Neonate • Pyloric and Duodenal Obstruction • Jejunoileal Atresia and Stenosis • Hypertrophic Pyloric Stenosis • Meconium Ileus • Hirschsprung's Disease • Colonic Atresia • Anorectal Malformations • Gastrointestinal Duplications and Mesenteric Cysts
<p>Topic 2 Congenital defects of the abdominal wall</p> <ul style="list-style-type: none"> • Umbilical Anomalies • Inguinal Hernia and Hydrocele • Intestinal Malrotation and Volvulus • Abdominal Wall Defects (omphalocele and gastroschisis) • Gastroesophageal Reflux • Achalasia
<p>Topic 3 Congenital malformations of the genitourinary system</p> <ul style="list-style-type: none"> • CAKUT (congenital anomalies kidney and urinary tract): Renal agenesis, dysplasia, hypoplasia / Duplex kidney, Horseshoe kidney / Duplication of the ureter / Ectopic Ureter / Vesicoureteric reflux / Congenital Hydronephrosis / Ureterocele / Ectopic ureter • Cryptorchidism • Hypospadias • Varicocele • Bladder exstrophy • Phimosis
<p>Topic 4 Congenital malformations of the respiratory system</p> <ul style="list-style-type: none"> • Tracheoesophageal Fistula and Esophageal Atresia • Congenital diaphragmatic hernia • Congenital Malformations of the Trachea (Tracheomalacia, Stenosis, etc.) and the Larynx (Laryngomalacia) • Congenital lung malformations • Congenital pulmonary airway malformation (CPAM): Pulmonary sequestration (intralobar, extralobar) / Congenital Lobar Emphysema / Bronchogenic cyst / Bronchial atresia
<p>Topic 5 Congenital defects of the musculoskeletal system</p> <ul style="list-style-type: none"> • Developmental dysplasia of the hip (Hip dysplasia) • Club foot • Congenital muscular torticollis • Scoliosis
<p>Topic 6 Graded test</p> <p>The final module control (Summative assessment)</p>

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Acquire the skills of interviewing and objective examination of the patient. Substantiate and apply clinical methods to understand the manifestations of surgical diseases in childhood.
LO2	Carry out differential diagnosis of surgical diseases of childhood, formulate a clinical diagnosis based on the evaluation of the results of laboratory and instrumental research methods.
LO3	Be able to determine the tactics of management of patients with various pathological conditions caused by surgical nosologies.
LO4	To master the main classes of pharmacological drugs used in pediatric practice, to apply appropriate clinical and pharmacological principles for the management of pediatric patients, to calculate the doses of drugs for children with surgical pathology.
LO5	To make in practice the differential diagnosis of the main syndromes that occur in the clinic of emergencies caused by surgical pathology in children.

LO6	Justify the use of basic invasive and non-invasive diagnostic methods, be able to perform medical manipulations.
LO7	Determine the necessary mode of daily activity, training and rest in the treatment of children with surgical pathology in a health care facility, at the patient's home and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

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

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	Identify and identify leading clinical symptoms and syndromes; according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish the most probable nosological or syndromic preliminary clinical diagnosis of the disease.
PO2	Collect information about the general condition of the patient, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies to evaluate information about the diagnosis.
PO3	Prescribe and analyze additional (mandatory and optional) methods of examination (laboratory, radiological, functional and / or instrumental), patients with diseases of organs and systems of the body for the differential diagnosis of diseases.
PO4	Establish a final clinical diagnosis by making an informed decision and logical analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis), adhering to the relevant ethical and legal norms, under the supervision of a doctor in a medical institution.
PO5	Determine the main clinical syndrome or the severity of the victim's condition by making an informed decision and assessing the person's condition under any circumstances (at home, on the street, health care facility, its units), including in conditions of emergency and hostilities, in the field, in conditions of lack of information and limited time.
PO6	To determine the nature and principles of treatment of patients (conservative, operative) with the disease in a health care facility, at the patient's home and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision on existing algorithms and standard schemes, if necessary to expand the standard scheme to be able to justify personalized recommendations under the supervision of a physician
PO7	Determine the necessary mode of work and rest in the treatment of patients with the disease in a health care facility, at the patient's home and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

PO8	Determine the necessary diet in the treatment of patients with the disease in a health care facility, at the patient's home and at the stages of medical evacuation, including in the field on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.
PO11	Determine the tactics of emergency medical care, under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision, based on the main clinical syndrome (severity of the condition) to diagnose an emergency in a limited time using standard schemes.
PO12	Provide emergency medical care, under any circumstances, in accordance with the relevant ethical and legal norms, by making an informed decision, based on the main clinical syndrome (severity of the condition) to diagnose an emergency in a limited time according to certain tactics, using standard schemes.
PO13	Organize medical and evacuation measures among the population and servicemen, in emergency situations and hostilities, including in the field, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.
PO14	Perform medical manipulations in a medical institution, at home or at work on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision, adhering to the relevant ethical and legal norms
PO15	Perform emergency medical care manipulations for a limited time, using standard schemes, under any circumstances based on an emergency diagnosis.
PO16	Plan and implement a system of sanitary and hygienic and preventive measures for the occurrence and spread of diseases among the population.
PO18	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information. Apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems.
PO19	Assess the impact of the environment on public health.
PO21	Organize the necessary level of individual safety (own and carers) in case of typical dangerous situations in the individual field of activity.

7. Teaching and learning activities

7.1 Types of training

<p>Topic 1. Congenital intestinal obstruction</p> <p>pr.tr.1 "Congenital intestinal obstruction"</p> <p>Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Intestinal Obstruction in the Neonate • Pyloric and Duodenal Obstruction • Jejunoileal Atresia and Stenosis • Hypertrophic Pyloric Stenosis The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.</p>
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pr.tr.2 "Congenital intestinal obstruction"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Meconium Ileus • Hirschsprung's Disease • Colonic Atresia • Anorectal Malformations • Gastrointestinal Duplications and Mesenteric Cysts The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.

Topic 2. Congenital defects of the abdominal wall

pr.tr.3 "Congenital defects of the abdominal wall"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Umbilical Anomalies • Inguinal Hernia and Hydrocele • Intestinal Malrotation and Volvulus Study this topic involves theoretical work in the classroom, the use of virtual simulation with further discussion. If possible, work at the patient's bedside in the relevant departments of the medical institution (according to the cooperation agreement between medical institution and university).

pr.tr.4 "Congenital defects of the abdominal wall"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Omphalocele and Gastroschisis • Gastroesophageal Reflux • Achalasia. Study this topic involves theoretical work in the classroom, the use of virtual simulation with further discussion. If possible, work at the patient's bedside in the relevant departments of the medical institution (according to the cooperation agreement between medical institution and university).

Topic 3. Congenital malformations of the genitourinary system

pr.tr.5 "Congenital malformations of the genitourinary system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • CAKUT (congenital anomalies kidney and urinary tract): Renal agenesis, dysplasia, hypoplasia / Duplex kidney, Horseshoe kidney / Duplication of the ureter / Ectopic Ureter / Vesicoureteric reflux / Congenital Hydronephrosis / Ureterocele / Ectopic ureter. Topics include theoretical work in the classroom, work in the simulation center with further discussion. If possible, work at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

pr.tr.6 "Congenital malformations of the genitourinary system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Cryptorchidism • Hypospadias • Varicocele • Bladder exstrophy • Phimosis Topics include theoretical work in the classroom, work in the simulation center with further discussion. If possible, work at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 4. Congenital malformations of the respiratory system

pr.tr.7 "Congenital malformations of the respiratory system and diaphragm defects"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Tracheoesophageal Fistula and Esophageal Atresia • Congenital diaphragmatic hernia • Congenital Malformations of the Trachea (Tracheomalacia, Stenosis, etc.) and the Larynx (Laryngomalacia) • Congenital lung malformations. In addition, the study of this topic involves the acquisition of practical skills of palpation, percussion, and auscultation at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Interpretation of the results of laboratory and instrumental methods of examination, preparation of a treatment plan.

pr.tr.8 "Congenital malformations of the respiratory system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Congenital pulmonary airway malformation (CPAM): Pulmonary sequestration (intrapulmonary, extrapulmonary) / Congenital Lobar Emphysema / Bronchogenic cyst / Bronchial atresia In addition, the study of this topic involves the acquisition of practical skills of palpation, percussion, and auscultation at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Interpretation of the results of laboratory and instrumental methods of examination, preparation of a treatment plan.

Topic 5. Congenital defects of the musculoskeletal system

pr.tr.9 "Congenital defects of the musculoskeletal system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Developmental dysplasia of the hip (Hip dysplasia) • Club foot • Congenital muscular torticollis • Scoliosis The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.

Topic 6. Graded test

pr.tr.10 "Graded test"

The final module control (Summative assessment). Evaluation of written works, surveys, solving a clinical case. Test. The expertise of an individual research project (incentive activities, additional points).

7.2 Learning activities

LA1	Work with textbooks and relevant information sources
LA2	Self-study
LA3	Comprehend the Case Situation
LA4	Interpretation of laboratory (clinical analysis of blood, urine, biochemical analysis of blood, etc.) and instrumental (esophagogastroduodenoscopy, ultrasound, CT, radiography, etc.) methods of examination
LA5	Preparation for practical classes
LA6	Practical work with the patient in the specialized departments of the hospital

LA7	E-learning in systems (Zoom, MIX.sumdu.edu.ua)
LA8	Watching educational films
LA9	Individual research project (student research paper, article, thesis, etc.)
LA10	Training of practical skills in the simulation center
LA11	Preparing for Krok-2

8. Teaching methods

Course involves learning through:

TM1	Case-based learning (CBL)
TM2	Team-based learning (TBL)
TM3	Research-based learning (RBL)
TM4	Practice-oriented learning
TM5	Method of illustrations
TM6	Educational discussion / debate

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which contribute not only to the development of professional skills, but also stimulate creative and scientific activities and are aimed at training practice-oriented professionals.

The discipline provides students with the following soft skills: GC 1. Ability to abstract thinking, analysis, and synthesis. GC 2. Ability to learn, master modern knowledge, and apply the knowledge in practice. GC 3. Knowledge and understanding of the subject area and professional activity comprehension. GC 4. Ability to adapt and act in a new situation. GC 5. Ability to make reasoned decisions; teamwork ability; interpersonal skills. GC 7. Ability to use information and communication technologies. GC 8. Determination and persistence on the tasks and commitments undertaken.

9. Methods and criteria for assessment

9.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	$170 \leq RD \leq 200$
Above the average standard but with minor errors	4 (Good)	$140 \leq RD < 169$
Fair but with significant shortcomings	3 (Satisfactory)	$120 \leq RD < 139$
Fail – some more work required before the credit can be awarded	2 (Fail)	$0 \leq RD < 119$

9.2 Formative assessment

FA1	Interviews and oral comments
FA2	Peer assessment

FA3	Independent work of students and learning activities are based on patient cases
FA4	Assessment of written assignments
FA5	Comprehend the case situation
FA6	Testing
FA7	Defense of an individual research project (speech at a conference, competition of scientific works)

9.3 Summative assessment

SA1	Interview, assessment of written assignments, comprehend the case situation
SA2	Testing
SA3	Graded test (summative assessment)
SA4	Defense of an individual research project (incentive activities, additional points)

Form of assessment:

11 semester		200 scores
SA1. Interview, assessment of written assignments, comprehend the case situation		100
		100
SA2. Testing		20
		20
SA3. Graded test (summative assessment)		80
	The answer to theoretical questions (3x15)	45
	Realization of a practical skills	15
	Providing emergency care	20

Form of assessment (special cases):

11 semester		200 scores
SA1. Interview, assessment of written assignments, comprehend the case situation		100
	In case of quarantine restrictions, evaluation of written works, surveys, clinical case resolution are conducted remotely using the platform Mix.sumdu.edu.ua, Zoom, Google meet.	100
SA2. Testing		20
	In case of quarantine restrictions, testing is performed remotely using the Mix.sumdu.edu.ua platform.	20
SA3. Graded test (summative assessment)		80
	In case of quarantine restrictions, the test is made remotely using Mix.sumdu.edu.ua, Zoom, Google meet.	80

When mastering the materials of the module, the student is assigned a maximum of 5 points for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the academic year, the arithmetic mean of student performance is calculated. The student receives a maximum of 20 points for Testing. The minimum number of points that a student must receive is 12 points. The maximum number of points for the current educational activity of the student is 120. The student is admitted to the Graded test if the requirements of the curriculum are met and if he scored at least 72 points for the current educational activity: 60 points during practical classes and 12 points for testing. Differentiated credit is made according to the schedule at the end of teaching the discipline. When compiling a Graded test, the student is given 3 theoretical questions on various topics, covering all sections of the discipline (15 points each), 1 practical task (15 points) and the issue of emergency care (20 points). The Graded test is credited to the student if he/she scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project - 3 points. The total score in the discipline may not exceed 200 points.

10. Learning resources

10.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library funds, archive of radiographs, spiograms, electrocardiograms, computer tomograms, laboratory results
MTS3	Computers, computer systems and networks
MTS4	Simulation center (phantom child for emergency care with a set of equipment)
MTS5	Sumy Regional Children's Clinical Hospital
MTS6	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, laptop screens)
MTS7	Software (to support distance learning)
MTS8	Medical equipment (pulse oximeter, tonometer, phonendoscope, etc.)


10.2 Information and methodical support

Essential Reading	
1	Ashcraft's pediatric surgery. 7th edition / George Holcomb J. Patrick Murphy Shawn St Peter (Eds.) – Elsevier, 2019. – 1316 p.
2	Pediatric Surgery : textbook / V.A. Dihtiar, V.I. Sushko, D.Yu. Kryvchenia et al.; edited by V.A. Dihtiar, V.I. Sushko, D.Yu. Kryvchenia. — Kyiv : AUS Medicine Publishing, 2019. — 368 p. + 14 p. colour insert.
3	Sameh Shehata. Pediatric Surgery, Flowcharts and Clinical Algorithms. – IntechOpen, 2019. – 168 p.
4	Ahmed H. Al-Salem. Atlas of Pediatric Surgery. Principles and Treatment. – Springer, 2020. – 910 p.
5	P. Puri. Pediatric Surgery. General Principles and Newborn Surgery / Springer, 2020. – 1294 p.

Supplemental Reading	
1	Mark Davenport, James D. Geiger. Operative Pediatric Surgery. 8th Edition – CRC Press, 2020. – 928 p.
2	Кривченя Д.Ю. Вади розвитку дихальної системи. Атлас: навч. посіб. / Д.Ю. Кривченя, Є.О. Руденко. К.: ВСВ «Медицина», 2017. – 192 с.
3	Етіоепідеміологічна характеристика гострої кишкової непрохідності у дітей Сумського регіону / А. І. Альошина та ін. Інноваційні технології в хірургії та анестезіології і інтенсивній терапії дитячого віку : матеріали наук. конф., м. Київ, 18–19 жовт. 2019 р. Київ, 2019. С. 29–31.
Web-based and electronic resources	
1	https://emedicine.medscape.com/pediatrics_surgery
2	http://www.uptodate.com
3	http://accessmedicine.mhmedical.com
4	https://websurg.com/en/search/?q=Pediatric%20surgery
5	https://pubmed.ncbi.nlm.nih.gov/
6	https://www.nucleusmedicalmedia.com
7	https://www.osmosis.org/library/md/clerkships/pediatrics#pediatric_medicine_and_surgery

COURSE DESCRIPTOR

№	Topic	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
full-time course form of study							
1	Congenital intestinal obstruction	6	0	4	0	2	0
2	Congenital defects of the abdominal wall	6	0	4	0	2	0
3	Congenital malformations of the genitourinary system	6	0	4	0	2	0
4	Congenital malformations of the respiratory system	6	0	4	0	2	0
5	Congenital defects of the musculoskeletal system	4	0	2	0	2	0
6	Graded test	2	0	2	0	0	0
<i>Total (full-time course form of study)</i>		<i>30</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>10</i>	<i>0</i>

	<p>UNIVERSITY POLICIES FOR THE COURSE «Pediatric Surgery»</p> <p>Higher education level The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle Major: Educational programme 222 Medicine: Medicine Year of study 2022 Semester one semester Mode of study full-time course Language of instruction English</p>
Teacher(s)	Ovechkin Denys Viacheslavovych
Contact	Ovechkin Denys Viacheslavovych PhD, Associate Professor Department of Surgery, Traumatology, Orthopedics and Phthisiology e-mail: d.ovechkin@med.sumdu.edu.ua
Time and room for giving consultations	Sumy Regional Children's Clinical Hospital, every Thursday 16:00-17:30
Links to online educational platforms	https://elearning.sumdu.edu.ua/works/6970/nodes/1846131 https://testkrok.org.ua/
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/syllabus/f47e4e91b16e0bd62ec07e36f1e888802573964
Channels for maintaining contact with the group for receiving and working on materials	Sumy State University personal account, mix.sumdu.edu.ua, e-mail, Viber
POLICIES	
Attendance policy	The student must attend 100% of the practical classes. In case of skipping classes, the student must work off the missed classes in accordance with the schedule of work approved by the department.

<p>Assessment policy</p>	<p>When mastering the materials of the student's discipline, a maximum of 5 points is assigned for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the discipline is calculated arithmetic mean of student performance. The maximum number of points for the current educational activities of the student - 120, for Graded Test - 80. For testing in the test, the student receives a maximum of 20 points. The minimum number of points that a student must receive is 12 points. The student is admitted to the test provided that the requirements of the curriculum are met and if he/she has scored at least 72 points for the current academic activity. Differentiated credit is made according to the schedule at the end of teaching the discipline. When compiling a Graded Test, the student is given 3 theoretical questions on various topics, covering all sections of the discipline (15 points each), 1 practical task (15 points) and the issue of emergency care (20 points). The Graded Test is credited to the student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project 3 points. The total score in the discipline may not exceed 200 points.</p>
<p>Deadlines and course retake policy</p>	<p>In case of the insufficient number of points for current classes, students have the opportunity to take the test by preparing for the main questions of the discipline (list of questions on the site or from the teacher) and pass the "Admission" to the test by answering 3 random questions from the above list. The student has 3 attempts to pass the "Admission" with an interval of preparation of at least two days. Thus the third (last) attempt of "Admission" is carried out only in the presence of the head of the department. In case the student received an unsatisfactory grade on the differentiated test, he must rearrange it in the form of a survey and solve a clinical case. The student must reschedule the test before the beginning of the next semester. The student has 3 attempts to retake the test according to the schedule approved by the department. The student has the right to receive an explanation of the grade obtained.</p>
<p>Assessment appeals policy</p>	<p>The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.</p>

Academic integrity policy	<p>Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.</p>
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Alignment of learning outcomes with teaching and learning activities and assessment

For 222 Medicine:

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO1, PO2, PO3	LO1	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA3, LA4, LA6, LA8, LA10	TM1, TM2, TM3, TM5	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA1, SA2, SA3, SA4
PO1, PO2, PO3, PO4, PO5	LO2	pr.tr.1, pr.tr.10, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA3, LA4, LA5, LA6, LA7, LA8, LA9	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS5, MTS6, MTS7	SA1, SA2, SA3, SA4
PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO11, PO12, PO13, PO14, PO15, PO16, PO18, PO19, PO21	LO3	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA8, LA9, LA11	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7	SA1, SA2, SA3
PO4, PO5, PO6, PO8, PO12	LO4	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA8	TM1, TM2, TM4, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7	SA1, SA2, SA3
PO1, PO2, PO3, PO5, PO11, PO12, PO18	LO5	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA4, LA5, LA6, LA7, LA8, LA9, LA11	TM1, TM2, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7, MTS8	SA1, SA2, SA3
PO1, PO3, PO4, PO6, PO12, PO15	LO6	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA8	TM1, TM2, TM5	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA1, SA2, SA3

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO6, PO7, PO8, PO13, PO16, PO19, PO21	LO7	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA1, LA2, LA5, LA6	TM1, TM2, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6	SA1, SA2, SA3, SA4