COURSE UNIT DESCRIPTION

Course unit title	Code
Children diseases and Pediatric surgery – part I (2023-2024)	

Lecturer(s)	Department(s)
Coordinating: asist. Indrė Stacevičienė **Others:** assoc. prof. Inga Ivaškevičienė, lect. Božena Paškevič, j. asist. Paulius Kalibatas, asist. Skaistė Sendžikaitė, prof. dr. Gilvydas Verkauskas, dr. Giedrius Bernotavičius, lect. Rūta Mačiulytė, lect. Paulius Valatka, lect. Linas Zagorskis	Vilnius University, Faculty of Medicine, Institute of Clinical Medicine, Clinic of Children's Diseases, Santariškių st. 4, Vilnius Vilnius University, Faculty of Medicine, Institute of Clinical Medicine, Clinic of Gastroenterology, Nephrourology and Surgery, Santariškių st. 7, Vilnius

Cycle	Level of the course unit	Type of the course unit
cycle (integrated studies)	-	Compulsory

Mode of delivery	Period of delivery	Language of instruction
Lectures and seminars in classrooms, practical tasks at the Centre of Pediatrics, Pediatric Surgery, Pediatric Intensive Care Unit.	semester IX;	English

Prerequisites and corequisites	
Prerequisites: A student must have completed the following courses: Human anatomy, Human histology, Human physiology and Genetics, Biochemistry, Microbiology, General medicine propaedeutics and Basics of clinical oncology, Radiology, Pathology, Anaesthesiology and Intensive care, General Surgery, Infectious diseases and Dermatology, General Paediatrics and Neonatology, Pulmonology, Allergology and Clinical Immunology, Thoracic Surgery, Gastroenterology and Abdominal Surgery, Neurology and Neurosurgery, Clinical Laboratory Diagnostics, Traumatology and Rehabilitation, Cardiology.	**Corequisites (if any):** none.

Number of ECTS credits allocated to the course unit	Total student's workload	Contact hours	Self-study hours
5	133	66	67
Children diseases (Pediatric Infectious Diseases): 3	80	40	40
Pediatric surgery: 2	53	26	27

Purpose of the course unit: Programme competences to be developed
Aims: **Children diseases (Pediatric Infectious Diseases)**: to learn the aetiology, types, diagnosis and treatment of children infectious diseases.

After the graduation of the course students are required to know the main syndromes of infectious diseases, to analyse epidemiological data, to know how to organize preventive and anti-epidemic measures, how to collect clinical materials for laboratory tests, to interpret their results, to make a clinical diagnosis, to administer etiopathogenetic treatment. **Pediatric surgery:** Students should learn the methods of clinical investigation, to establish the diagnosis and to provide the emergency medical aid in cases of main pediatric surgical diseases, congenital anomalies and trauma. They get acquainted with the principals of investigation and surgical treatment of children as well as the organization of pediatric surgical care. Graduates will be able to make investigation plan, evaluate radiological and laboratory data, establish the diagnosis and know the principles of surgical management.		
Learning outcomes of the course unit	**Teaching and learning methods**	**Assessment methods**
Generic competences **At the end of the study programme graduate will be able:**		
To act fairly and according to ethical obligations, to think critically and self-critically, to be creative, initiative, to pursue his/her own aim, to communicate with others. To make an assessment within the scope of one's competence and, if necessary, ask for help, to solve problems, to make judgments, to work with specialists of other fields. To analyze and synthesize, to use knowledge in practice.	Lectures (e-learning), individual search for information, seminars in classrooms, practical tasks at the Center of Pediatrics and Pediatric Surgery Unit, clinical case analysis and discussion within a group.	Continuous assessment of practical tasks presenting, analyzing, discussing clinical cases and making decisions. Assessment of preparation and control tests.
Subject-specific competences **At the end of the study programme graduate will be able:**		
To obtain medical history, epidemiological anamnesis from children of various age and their relatives. To carry out physical examination of children of various age, using inspection, palpation, percussion and auscultation skills. To recognize, assess and describe the manifestation, course and severity of clinical signs of children's infectious and surgical diseases; to order required tests and interpret their results; to carry out differential diagnostics and to prepare the relevant patient monitoring plan; to discuss the child's disease and condition with his parents or guardians.	Lectures (e-learning), individual search for information, seminars in classrooms, practical tasks at the Center of Pediatrics, Pediatric Surgery Unit, examining and discussing the patients. Solving real and simulated clinical situations. Preparing, solving and discussing tests. Taking part in ward rounds and patient discussions	Continuous assessment of practical tasks presenting, analyzing, discussing clinical cases and making decisions.at the Center of Pediatrics, Pediatric Surgery Unit. Assessment of preparation and tests. The cumulative exam score at the end of the course.
To administer adequate and appropriate treatment according to child's age and weight; to assess the appropriateness, potential benefit and harm of medicines and other treatment methods to children of all age groups; to assess the effectiveness of the treatment. To diagnose urgent pediatric surgical diseases: history taking, clinical investigation, evaluation of investigational data, surgical indications, preoperative work-up, and principals of surgery.	Lectures (e-learning), individual search for information, seminars in classrooms, practical tasks at the Center of Pediatrics, Pediatric Surgery Unit and in the Operating theatre. Examining and discussing the patients. Solving real and simulated clinical situations.	Continuous assessment of practical tasks administering treatment, motivating decision and assessing the effectiveness of treatment at the Center of Pediatrics and Pediatric Surgery Unit. Assessment of preparation and tests. The cumulative exam score at the end of the course.

To understand preventive measures, to build up evidence-based approach to vaccines among parents, society, media, staff of children's educational institutions.	Lectures (e-learning), individual search for information, seminars in classrooms, practical tasks at the Center of Pediatrics.	Continuous assessment during practical tasks. Computerized written exam at the end of the course; final score by means of cumulative evaluation.
To apply principles, methods and knowledge of biomedical sciences in medical practice. To use computers and search for sources of information	Lectures and seminars in classrooms. Taking part in ward rounds and patient discussions. Solving real and simulated clinical situations.	Continuous assessment of practical tasks at the Center of Pediatrics and Pediatric Surgery Unit. Assessment of real and simulated clinical case analysis.
To maintain confidentiality, apply ethical principles in clinical practice. To understand the principles of efficient communication in medical practice: to communicate with patients, their relatives and specialists from children's educational institutions.	Practical training in the Center of Pediatrics and Pediatric Surgery Unit, examining and discussing the patients. Analyzing real and simulated clinical situations.	Continuous assessment of practical tasks at the Center of Pediatrics and Pediatric Surgery Unit.

Topics	**Contact work hours**							**Time and tasks of self-study**	
	Lectures	Consultations	Seminars	Practice	Laboratory work	Practical training	**Total contact hours**	**Self-study**	**Tasks**
Children diseases (Pediatric Infectious Diseases)									
1. Epidemiology, clinical presentation, diagnosis, antibacterial therapy and prevention of bacterial gastrointestinal infections (salmonellosis, shigellosis, escherichiosis, campylobacteriosis, yersiniosis, pseudotuberculosis).			2	2			5	5	To prepare for practice on the topic of bacterial gastrointestinal infections regarding their aetiology, epidemiology, clinical presentation, diagnosis, antibacterial therapy and prevention. To know how to collect clinical materials for laboratory tests.
2. Epidemiology, clinical presentation, diagnosis, pathogenetic therapy and prevention of viral gastrointestinal infections	2		2	2			5	5	To prepare for practice on the topic of viral gastrointestinal infections regarding their aetiology, epidemiology, clinical presentation, diagnosis, pathogenetic therapy and prevention. To know how to collect clinical materials for laboratory tests.
3. Epidemiology, clinical presentation, diagnosis, management and prevention of viral infections (measles, rubella, chickenpox, shingles, infectious mononucleosis, mumps, parvovirus infection, Herpes simples ½, exanthema subitem, hand, foot and mouth disease).	2		4	4			15	15	To prepare for practice on the topic of viral infections regarding their aetiology, epidemiology, clinical presentation, diagnosis, management and prevention. To know how to collect clinical materials for laboratory tests.

4. Epidemiology, clinical presentation, diagnosis, management and prevention of bacterial infections (scarlet fever, pneumococcal infection, pertussis, parapertussis, *Haemophilus influenzae* infection, meningococcal infection, diphtheria in children).	2		4	4			10	10	To prepare for practice on the topic of bacterial infections regarding their aetiology, epidemiology, clinical presentation, diagnosis, management and prevention. To know how to collect clinical materials for laboratory tests.
5. Prevention of children's infectious diseases.	2		4	4			5	5	To prepare for practice about prevention of children's infectious diseases, to know the purpose of immunoprophylaxis, the peculiarities of immune serums, the classification of vaccines and vaccination schedule.
Total	**8**		**16**	**16**			**40**	**40**	
Pediatric surgery									
1. Urgent pediatric surgical diseases of abdominal organs: acute appendicitis (differences in small children), acute bowel obstruction (intussusception, bowel adhesions, incarcerated hernia), abdominal trauma. Foreign bodies of gastrointestinal tract.	1		2	1			4	4	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
2. Congenital bowel obstruction: esophageal atresia, duodenal atresia, atresia of small bowel, recta atresia, Hirshprung disease, pyloric stenosis, rotational anomalies, omphalocele.	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
3. Congenital anomalies of the respiratory system (diaphragmatic hernia, congenital anomalies of lungs and bronchi). Foreign bodies of respiratory system. Pediatric abdominal hernias.	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
4. Purulent diseases of children: acute hematogenous osteomyelitis, dermal and sub dermal infections, destructive pneumonia and its complications. Pediatric oncology. Most frequent benign (hemangioma, lymphangioma, teratoma) and malignant (neuroblastoma, hepatoblastoma, teratoblastoma) tumors.	1		2	1			4	5	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
5. Congenital anomalies of urinary tract (urinary obstruction, vesicoureteral reflux, bladder exstrophy).	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.

Urinary tract infection and stone disease.									
6. Congenital anomalies of genital organs (hypospadias, epispadias, cryptorchidism, phimosis, hydrocele, testicular torsion, varicocele). Urological oncology (nephroblastoma).	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
7. Most common pediatric orthopedic problems (torticollis, congenital hip luxation, spine deformities, abnormal posture, feet and other limb deformities).	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
8. Pediatric trauma and accidents: bone fractures, neurotrauma, burns, chilblains.	1		1	1			3	3	To prepare theoretically for practical training and seminars. To learn methods of clinical investigation, interpretation of investigational data.
Total (Pediatric surgery)	**8**		**10**	**8**			**26**	**27**	
Total	**16**		**26**	**24**			**66**	**67**	

Assessment strategy	**Weight (points)**	**Assessment period**	**Assessment criteria**
Assessment of work at the Centre of Pediatrics, Pediatric Surgery Unit. Assessment of judgments taken in real and simulated clinical situations. Methods of evaluation: Written tests. Open-ended questions. Analysis and presentation of theoretical material. Presentation of clinical situations and analysis of theoretical material. Presentation and analysis of patients.	20	During the course	The evaluation points obtained during the seminars are summed up, the maximum total evaluation is 20 points: Children diseases (Pediatric Infectious Diseases) – 11 points, Pediatric surgery – 9 points. This evaluation is part of the cumulative final evaluation after Part II in Semester X.

Author	**Year of publication**	**Title**	**No of periodical or vol. of publication**	**Publication place and publisher or Internet link**
Required reading				
Long S.S., Prober C.G, Fisher M.	2023	Principles and Practice of Pediatric Infectious Diseases	6th edition	Philadelphia, 2023 by Elsevier
Cherry J, Demmler-Harrison G, Kaplan Sh, Steinbach WJ., Hotez P.	2019	Feigin and Cherry's Textbook of Pediatric Infectious Diseases	8th edition, Vol. 1 & 2	Philadelphia, Saunders Elsevier.
Vesikari T, Van Damme P. et all.	2017	Pediatric Vaccines and Vaccinations. A European Textbook	1st edition	Springer International Publishing AG. https://link.springer.com/book/10.1007%2F978-3-319-59952-6
Red. R. Kėvalas	2018	Pediatrija		Kaunas: UAB „Vitae Litera“

Red. Raugalė A., Kinčinienė O.	2015	Pediatrijos praktikos vadovas. Antroji laida		Vilnius: Baltijos idėjų grupė ir partneriai
Rossa Brugha, Matko Marlais ir Ed Abrahamson	2015	Vaikų klinikinio ištyrimo vadovas		Vilnius: UAB "Vaistų žinios"
Usonis V.	2010	Vakcinos ir skiepijimas		Vilnius: Homo Liber.
Red. Raugalė A	2005	Vaikų ligos	IV tomas	Vilnius: Vilniaus universiteto leidykla
Red. Raugalė A	2007	Vaikų ligos	V tomas	Vilnius: Vilniaus universiteto leidykla
Lectures	Assoc. prof. Inga Ivaškevičienė, prof. dr. Gilvydas Verkauskas, assist. Arūnas Strumila, assist. Giedrius Bernotavičius			
Recommended reading				
Robert Kliegman, Joseph St. Geme	2019	Nelson Textbook of Pediatrics	21st Edition	Elsevier
Moritz Ziegler, Richard Azizkhan , Daniel von Allmen, Thomas Weber	2014	Operative Pediatric Surgery 2nd Edition		Mosby, Filadelfija
P.Puri	2017	Newborn Surgery		by Arnold, Hodder Headline Group, London
S.Weinstein, J.Flynn	2020	Lowell and Winters Pediatric Orthopaedic	8th ed	Wolters Kluwer
J.Beaty, J.Kasser	2019	Rockwood and Wilkins Fracture in children	8th ed	Lippincott Williams /Wilkins
Steven G. Docimo, Douglas Canning,Antoine Khoury, Joao Luiz Pippi Salle	2018	The Kelalis-King-Belman Textbook of Clinical Pediatric Urology 6th edition		CRC Press
M. Lima	2017	Pediatric Digestive Surgery		Springer International Publishing Switzerland
Web-site of the European Centre for Disease control (ECDC)				www.ecdc.europa.eu
SAM gydymo metodikos				http://sam.lrv.lt/diagnostikos-gydymo-metodikos-ir-rekomendacijos/diagnostikos-ir-gydymo-protokolai
Web-site of the Centre of Disease Control (Atlanta)				www.cdc.gov
Web-site of the American Academy of Pediatrics				www.aap.org
National Public Health Centre under the Ministry of Health				https://nvsc.lrv.lt/
Websurg, the Online University of IRCAD				https://websurg.com/en

The European Board of Paediatric Surgery (EBPS) and European Pediatric Surgical Association (EUPSA) created EPSITE				https://www.paediatricsurgeryexam.org/index.php/training-courses
Global Initiative for Children's Surgery				https://www.globalchildrenssurgery.org/

Approved by the Clinic of Children's Diseases

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