

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES
AT VILNIUS UNIVERSITY**

Scientific Area/eas, Field/ds of Science	Medical and Health Sciences (M 000): Medicine (M 001)			
Faculty, Institute, Department/Clinic	Medical faculty, Institute of Clinical Medicine Clinic of Children's Diseases			
Course unit title (ECTS credits, hours)	Paediatric Gastroenterology and Dietetics 6 credits (189 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	1	1	4
Method of the assessment (in 10 point system)	<p>Prepare presentation: review article on targeted topic, reconciled with the mentor.</p> <p>Evaluation criteria (minimal score – 5):</p> <ul style="list-style-type: none"> a) actuality, novelty of the data (2 points); b) structure, volume and clarity of the presentation (2 points); c) the rise of problematic questions, substantiation of conclusions (2 points); d) the usefulness of the topic for the dissertation 2 points); e) visual presentation, ability to participate in the discussion (2 points). 			
PURPOSE OF THE COURSE UNIT				
<p>To know:</p> <ul style="list-style-type: none"> • Aetiology, pathophysiology, diagnostic and treatment of gastrointestinal tract diseases (oesophageal, gastric, gut, pancreas, liver). • Nutrition of the health and sick child; <p>Be able:</p> <ul style="list-style-type: none"> ○ Recognize disturbances of the gastrointestinal tract; ○ Recognize severe syndromes, be able to differentiate, to set aetiology and to prescribe correct treatment ○ To perform upper and lower endoscopic examination (oesophagus, stomach, gut); ○ To evaluate data of the radiologic, histologic examinations; ○ To evaluate child's growth; ○ To prescribe appropriate nutrition for the healthy and sick child; ○ To prescribe enteral parenteral nutrition, fluid therapy in sick child. 				
THE MAIN TOPICS OF COURSE UNIT				
<p>1. The healthy and sick child nutrition.</p> <ul style="list-style-type: none"> ➤ Infant nutrition: <ul style="list-style-type: none"> ○ Breastfeeding ○ Formula ○ Complimentary feeding ➤ Nutrition of the children <ul style="list-style-type: none"> ○ Nutrition of the sick children ➤ Food allergy. ➤ Failure to thrive. ➤ Obesity. ➤ Anorexia nervosa, bulimia. <p>2. Endoscopic examination of the gastrointestinal tract.</p> <ul style="list-style-type: none"> ➤ Anatomy of the GI tract. ➤ Preparation for the endoscopy ➤ Upper gastrointestinal tract diagnostic endoscopy 				

- Lower **gastrointestinal tract** diagnostic endoscopy

- Treatment possibilities of the endoscopy

3. Gastroenterology. Diseases of the oesophagus.

- Regurgitation of the healthy children.
- Gastroesophageal reflux disease: aetiology, pathophysiology, symptoms, diagnostics, endoscopic classification, treatment.
- Eosinophilic esophagitis: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Traumatic oesophageal diseases: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Congenital diseases of the oesophagus: aetiology, pathophysiology, symptoms, diagnostics, endoscopic classification, treatment.

4. Gastroenterology. Diseases of the stomach and duodenum.

- Congenital disease: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Gastritis, peptic ulcer disease: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Functional diseases: aetiology, pathophysiology, symptoms, diagnostics, treatment.

5. Gastroenterology. Small bowel diseases.

- Congenital disease: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Celiac disease: aetiology, pathophysiology, symptoms, diagnostics, endoscopic classification, treatment.
- Viral, bacterial, parasitic gut infectious diseases: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Food allergy of the gut: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Functional diseases: aetiology, pathophysiology, symptoms, diagnostics, treatment.

6. Gastroenterology. Large bowel diseases.

- Congenital disease: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Ulcerative colitis: aetiology, pathophysiology, symptoms, diagnostics, endoscopic classification, treatment.
- Crohn`s disease: aetiology, pathophysiology, symptoms, diagnostics, endoscopic classification, treatment.
- Viral, bacterial, parasitic colon infectious diseases: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Food allergy of the colon: aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Functional diseases of the colon: aetiology, pathophysiology, symptoms, diagnostics, treatment.

7. Gastroenterology. The main gastrointestinal symptoms.

- Acute and chronic abdominal pain. Aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Vomiting. Aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Diarrhoea. Aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Constipation. Aetiology, pathophysiology, symptoms, diagnostics, treatment.
- Palpable mass in the abdomen. Aetiology, pathophysiology, symptoms, diagnostics, treatment.

8. Gastroenterology. Enteral and parenteral nutrition.

Indications, complications, the construction of nutrition plan. Homeostasis of fluid, minerals and acid-base. Enteral and parenteral formula, nutrition pumps. Organisation of home enteral and parenteral nutrition.

9. Hepatology. The main hepatological symptoms. Jaundice, hepatomegaly, acute liver failure: aetiology, pathophysiology, symptoms, diagnostics, treatment. Indications for liver transplantation.

10. Hepatology. Congenital diseases. Bile obstruction.

11. Hepatology. Metabolic diseases. Fructosemia, Wilson disease, urea cycle disorders: aetiology, pathophysiology, symptoms, diagnostics, treatment.

12. Hepatology. Infectious diseases. Neonatal infectious diseases with the hepatic involvement. Viral hepatitis A, B, C, D, E: aetiology, pathophysiology, symptoms, diagnostics, treatment, vaccination.

13. Diseases of the pancreas. Cystic fibrosis, acute and chronic pancreatitis: aetiology, pathophysiology, symptoms, diagnostics, treatment, vaccination.

RECOMMENDED LITERATURE SOURCES

1. Robert Wyllie, Jeffrey S. Hyams, Marsha Kay, editors. "Pediatric Gastrointestinal and Liver Disease". Elsevier 2021.
2. Vaikų gastroenterologija. W.P. Bishop [vertė ir recenzavo V.Urbonas] 2012, Vaistų žinios, Vilnius.
3. Vaikų virškinimo organų ligų diagnostikos ir gydymo rekomendacijos. Respublikinės konferencijos darbai (straipsniai) V.Urbonas sudar. Vilnius, UAB „Ciklonas“ 2013: p.50.
4. Liver Disease in Children 5th Edition, Kindle Edition. Frederick J. Suchy (Author, Editor), Ronald J. Sokol (Editor), William F. Balistreri (Editor). Cambridge University Press. 2021 p862
<https://doi.org/10.1017/9781108918978>
5. Pediatric Nutrition (8th Edition). Edited Ronald E. Kleinman, MD, FAAP; Frank R. Greer, MD, FAAP. American Academy of Pediatrics. 2020 p.1630. ISBN electronic: 978-1-61002-361-0. ISBN print: 978-1-61002-360-3
6. www.espgan.org
7. www.espen.org

CONSULTING LECTURERS

1. Coordinating lecturer: Vaidotas Urbonas (Prof. Dr.).

2. Odilija Rudzevičienė (Prof. Dr.).

APPROVED:

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:
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Chairperson of the Board: Prof. Janina Tutkuvienė