



SUBJECT (MODULE) DESCRIPTION

The name of the academic subject (module) Code	Code
Gastroenterology and abdominal surgery (2023-2024)	

Staff	Division(s)
<p>Co-ordinator: Assoc. Prof. Goda Sadauskaite</p> <p>Others: Prof. Kęstutis Strupas, Prof. Gintaras Simutis, Prof. Eligijus Poškus, Prof. Audrius Šileikis, Assoc. prof. Valdemaras Jotautas, Assoc. prof. Vitalijus Sokolovas, Assoc. prof. Aistė Kielaitė-Gulla, Asist. Marius Petrulionis, Assist. Rokas Račkauskas, Assist. Marius Kryžauskas, assist. Mindaugas Kvietkauskas.</p> <p>Others:, Prof. Jonas Valantinas, Assoc. Prof. Ieva Stundiene, Assoc. Prof. Edita Kazėnaitė, Assist. Rolandas Vaicekauskas, Assist. Ilona Savlan, Assist. Benediktas Kurlinkus, assist. Laura Mašalaitė, assist. Eglė Dieninytė-Misiūnė.</p>	<p>Faculty of Medicine, Vilnius University. Institute of clinical medicine, Clinic of Gastroenterology, Nephrourology and Surgery, Santariškių st. 2, Vilnius</p>

Cycle of studies	Level of the module	Type of the subject (module)
Integrated studies (First step)		Compulsory

Form of implementation	Period	Language(s) of instruction
<p>In the auditorium: lectures and seminars in the classroom, practical classes in the operating theatres, departments of surgery, departments of hepatology, gastroenterology and dietology center, endoscopic and ultrasonography rooms, simulation-based surgical education classroom.</p>	VIIth semester	Lithuanian and English

Requirements for student	
<p>Prerequisites: student must be skilled in human anatomy, human physiology, pharmacology, propaedeutic of internal medicine, biochemistry, microbiology, pathological anatomy, immunology, general surgery</p>	<p>Additional requirements (if present): No</p>

Volume of the subject (module) in credits	Total student's workload	Contact work hours	Independent work hours

10 credits	256	124	132
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Purpose of the course – to be aware of digestive tract diseases+ and abdominal organs surgical diseases* etiology and pathophysiology, clinic, principles of diagnostics, differential diagnostics and treatment, classifications, methods and results of different operations. After completing the course, students must be able to objectively and subjectively evaluate patients with digestive tract diseases and abdominal surgical diseases, create an adequate research plan, to assess the results of the investigations and determine a clinical diagnosis by interpreting them, conduct differential diagnostics and to appoint an adequate treatment. *Surgical diseases of abdominal cavity organs: abdominal wall hernias, esophageal diseases (achalasia, diverticula, cancer), gastroduodenal ulcers complications, stomach cancer, small bowel diseases (polyps, diverticula, tumors, inflammations, trauma), chronic and acute appendicitis, liver diseases (tumors, simple and parasitic cysts, abscesses, trauma), gallbladder and ducts diseases (cholelithiasis, tumors, trauma, inflammations), diseases of pancreas (acute and chronic pancreatitis, tumors, cysts, trauma), large bowel diseases (tumors, polyps, diverticular disease, inflammatory diseases, trauma), rectal diseases (cancer, prolapse), proctology (hemorrhoids, paraproctitis, fissures, anorectal fistulas), endocrine surgical diseases (goiter, cancer; primary, secondary and tertiary hyperparathyroidism, adrenal cancer, hormonally active adrenal tumors, adrenal incidentaloma), metabolic surgery (obesity, pancreatic endocrine tumors), gastrointestinal stromal tumors (GIST), bowel obstruction, peritonitis, mechanical jaundice, closed and open abdominal trauma.

Digestive tract diseases+:

Diseases of the esophagus:

- functional and motoric diseases (achalasia, esophagus nut-cracker, diffuse spasm of the esophagus), GERD, Barret esophagus, Schatzki ring, esophagitis (eosinophilic, infectious, chemical, drug-induced, fungal), diverticula, Mallory Weiss syndrome, caustic, neurogenic dysphagia, preneoplastic and neoplastic esophagus diseases

-Diseases of the stomach: functional and motoric gastroduodenal diseases (functional dyspepsia, gastroparesis, Dumping syndrome, acute and chronic gastritis, gastroduodenal ulcer disease, preneoplastic and neoplastic gastric diseases

-Bleeding from digestive tract

-Malabsorption (celiac disease, pancreatic insufficiency, Whipple disease, other enteropathies, SIBO)

-Bowel diseases: functional bowel diseases (IBS , others), chronic inflammatory bowel diseases (ulcerative colitis and Crohn disease, microscopic colitis), infectious colitis (Clostridioides difficile colitis), diverticulosis and diverticulitis, preneoplastic and neoplastic bowel diseases, pancreatobiliary diseases (acute and chronic pancreatitis, gallstones from Gastroenterology point of view, preneoplastic and neoplastic diseases of pancreatobiliary tract

-Liver diseases: (liver injury syndrome, jaundice, acute and chronic hepatitis, chronic hepatitis B and C, autoimmune, cholestatic liver diseases and inherited liver diseases (autoimmune hepatitis, PBC, PSC, Wilson disease, Hemochromatosis), alcoholic liver disease, non-alcoholic fatty liver disease, drug-induced liver injury, liver cirrhosis and portal hypertension (varices, variceal bleeding, ascites, SBP, hepatic encephalopathy, hepatorenal syndrome), preneoplastic and neoplastic liver diseases

Study methods	Assessment methods
<p>Discussion, demonstration and analysis of a cases, modeling of situations, group discussion, individual discussion, information retrieval, reading of literature, preparation and presentation of a report, modeling of situations, review of surgery videos, writing of medical history or a case, practice with surgery simulators, information retrieval, reading of literature, preparing presentations. Self-present at the lectures is recommended, at the seminars and classworks are mandatory. Lecturer is responsible for student’s attendance records. For the mist workshops and seminars, students must work-off according to clinic procedures.</p>	<p>Knowledge, abilities and skills assessment applies on ten-point assessment system. Study module results are evaluated through intermediate tests. Knowledge tests (close and open questions) on video lectures and class meetings. Research paper: clinical case description according to clinic procedures. The student can participate in the final exam only after listened all the lectures, participated in all classworks and seminars, provided knowledge and passed all the assessment tests during the exercises, followed by all provided written work, and defended them in theory after spent due to illness. The final assessment for Gastroenterology and abdominal surgery Part I (FA) is formed from based on cumulative score system, it means it is accumulated during all semester and it is a sum of all intermediate evaluations from tests, lectures, reseach paper and final exam, according to coeficient: $FA = 0,25xT + 0,25xRP + 0,5xE$ T – tests evaluation (class work) grade; RP – written work (reseach paper) grade; E – final exam grade; FA can not be rounded up. The final assessment grade for Gastroenterology and abdominal surgery Part I is 50 proc. of module. Modul Gastroenterology and abdominal surgery FINAL RESULT is rounded up according general rules.</p>

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Themes	Contact hours						Independent work assignments		
	Lectures	Consultations	Seminars	Practical classes	Lab works	Practice	Total contact hours	Independent work	Assignments
1. Topographic anatomy of abdominal cavity organs	1						1	2	Scientific and methodological literature reading , video lectures and self control tests (theme: topographic anatomy of abdominal cavity organs)
2. Peritonitis	1			2			3	2	Scientific and methodological literature reading , video lectures and self control tests (theme: peritonitis)
3. Clinical examination of the abdomen				2			2	2	Scientific and methodological literature reading, video lectures and self control tests (theme: clinical examination of the abdomen)
4. Abdominal hernias			2	3			5	5	Scientific and methodological literature reading , video lectures and self control tests (theme: abdominal hernias)
5. Surgical diseases of esophagus, stomach and duodenum			2	3			5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: surgical diseases of esophagus, stomach and duodenum)
6. Surgical diseases of the small intestine			1	2			3	2	Scientific and methodological literature reading , video lectures and self control tests (theme: surgical diseases of small intestine)
7. Surgical diseases of large bowel			1	3			4	3	Scientific and methodological literature reading , video lectures and self control tests (theme: surgical diseases of large bowel)
8. Bowel obstruction				1			1	2	Scientific and methodological literature reading, video lectures and self control tests (theme: bowel obstruction)
9. Diseases of appendix			1	2			3	2	Scientific and methodological literature reading, video lectures and self control tests (theme: surgical diseases of the appendix)
10. Metabolic surgery				1			1	2	Scientific and methodological literature reading , video lectures and

									self control tests (theme: metabolic surgery)	
11. Obesity Surgery			2	1				3	2	Scientific and methodological literature reading , video lectures and self control tests (theme: surgery for obesity)
12. Endocrine surgery			2	3				5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: endocrine surgery)
13. Surgical diseases of gallbladder and its ducts			2	3				5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: surgical diseases of gallbladder and its ducts)
14. Diseases of pancreas			2	3				5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: diseases of pancreas)
15. Liver diseases			2	3				5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: liver diseases)
16.Rectum and anal canal diseases			2	3				5	5	Scientific and methodological literature reading, video lectures and self control tests (theme: rectum and anal canal diseases)
17. Abdominal trauma				1				1	2	Scientific and methodological literature reading, video lectures and self control tests (theme: open and closed traumas of abdominal organs)
18. Abdominal organ transplantation			1	2				3	2	Scientific and methodological literature reading, video lectures and self control tests (theme: abdominal organ transplantation)
19.Clinical Case report				2				2	8	To write a case report according to the Clinics Case report writing rules
20. Final discussion, analysis of questions		1						1		
Total in Surgery:	2		20	40				62	66	

21. Radiology and endoscopy in Gastroenterology	2	1	2						2	Scientific and methodological literature reading , video lectures, visits to radiology and endoscopy departments
22. Esophageal diseases (gastroenterology part)			2	4					6	Scientific and methodological literature reading, video lectures,

									practical classes and tests
23. Gastroduodenal diseases (gastroenterology part)			2	4					6 Scientific and methodological literature reading, video lectures, practical classes and tests
24. Bleeding from digestive tract			2						3 Scientific and methodological literature reading, video lecture
25. Malabsorption			2						3 Scientific and methodological literature reading, video lecture
26. Bowel diseases (gastroenterology part)			2	4					6 Scientific and methodological literature reading, video lectures, practical classes and tests
27. Diseases of pancreas (gastroenterology part)			2	4					6 Scientific and methodological literature reading, video lectures, practical classes and tests
28. Syndromes of liver injury			2						3 Scientific and methodological literature reading , video lectures
29. Chronic liver diseases. An overview			2						3 Scientific and methodological literature reading , video lectures
30. Chronic hepatitis C				4					4 Scientific and methodological literature reading, video lectures, practical classes and tests
31. Chronic hepatitis B				4					4 Scientific and methodological literature reading, video lectures, practical classes and tests
32. Autoimmune, cholestatic liver diseases and inherited liver diseases				4					4 Scientific and methodological literature reading, video lectures, practical classes and tests
33. Alcoholic liver disease, non-alcoholic fatty liver disease. Drug-induced liver injury.				4					4 Scientific and methodological literature reading, video lectures, practical classes and tests
34. Liver cirrhosis and portal hypertension.				8					8 Scientific and methodological literature reading, video lectures, practical classes and tests
Enteric and parenteric nutrition. Diet in Digestive tract diseases			2						4 Scientific and methodological literature reading
Exam preparation and examination									
Total in Gastroenterology:	2		20	40				62	66
Gastroenterology and Abdominal Surgery in total	4		40	80				124	132

Assessment strategy	Share in %	Time of assessment	Criteria of assessment
Activities in classrooms, practical classes in the operating room, in the department of surgery, in the room of simulators. Tests during practical	25 %	During the VIIth semester	The student is able to perform these assignments: – to collect anamnesis history of the patient who will be undergoing surgery, to conduct a physical examination and testing, to evaluate data of laboratory and other medical tests and to summarize the information received; – to explain symptoms and to connect to pathogenesis mechanisms; – to put the

classes.			<p>preliminary diagnosis; – to evaluate clinical and laboratory findings; – to offer the preliminary treatment plan for patient; – after complete patient’s evaluation (anamnesis, objective findings, lab and instrumental evaluation and morphological results) to put the final diagnosis and to differentiate from other similar diseases; – to offer a possible type of surgery and to conclude a plan of preoperative preparation and postoperative monitoring; – to assess the body's vital functions in patients after surgery (circulatory, respiratory, etc.), to transport patients and take care of them; – to know devices and instruments used during operations, to learn how to manage the camcorder and laparoscopic instruments; The test consists of 10 closed questions (varying in difficulty, from awareness to evaluation). Evaluated as follows: 10: Excellent knowledge. Evaluation level: all answers are correct. 9: Very good knowledge. Evaluation level: 9 answers are correct. 8: Good knowledge, there may be minor errors. Evaluation level: 8 answers are correct. 7: Average knowledge, there are errors. Evaluation level: 7-6 answers are correct. 6: Satisfactory knowledge, there are substantial errors. Evaluation level: 5 answers are correct. 5: Weak knowledge, there are a lot of mistakes but the minimum requirements are met. Evaluation level: 4-3 answers are correct. 4-1: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level: 1 - 2 answers are correct. All marks sum forms not rounded average</p>
Clinical case report	25 %	Until the last practical class	<p>A structure of written work, descriptive case completeness, information consistency and accuracy. Criteria for evaluation: 1. Technical/visual conditioning. Clarity of tables and pictures, text typos and mistakes in grammar; 2. Abstract. Clear essence. 3. Introduction. The idea of the work, clear proposes 4. Clinical case report. Short presents of anamnesis, clinical investigation, treatment and outcomes; 5. Discussion. Shown strategy of literature search according to case; 6. Conclusions: Clear and specific; All criterea are evaluated between 1 and 10. 10: Excellent knowledge. 9: Very good knowledge. 8: Good knowledge, there may be minor errors. 7: Average knowledge, there are errors. 6: Satisfactory knowledge, there are substantial errors. 5: Weak knowledge, there are a lot of mistakes but the minimum requirements are met. 4-1: Unsatisfactory knowledge, the minimum requirements are not met. Very weak knowledge, there are errors in all parts. The minimum requirements are not met. All marks sum forms not rounded average</p>
Final examination	50 %	After the end of practical classes. During the	<p>A computer-based testing. The examination consists of 100 questions (closed questions, varying in difficulty, from awareness to evaluation), 1 point for each of the questions. Evaluated as follows: 10: Excellent knowledge. Evaluation level. 95-100 correct</p>

		VIIIth semester (during the examination session)	<p>answers.</p> <p>9: Very good knowledge. Evaluation level. 85-94 correct answers.</p> <p>8: Good knowledge, there may be minor errors. Evaluation level. 75-84 correct answers.</p> <p>7: Average knowledge, there are errors. Evaluation level. 65-74 correct answers.</p> <p>6: Satisfactory knowledge, there are substantial errors. Evaluation level. 55-64 correct answers.</p> <p>5: Weak knowledge, there are a lot of mistakes but the minimum requirements are met. Evaluation level. 45-54 correct answers.</p> <p>4: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level. 35-44 correct answers.</p> <p>3: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level. 25-34 correct answers.</p> <p>2: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level. 15-24 correct answers.</p> <p>1: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level. 5-14 correct answers.</p> <p>0: Unsatisfactory knowledge, the minimum requirements are not met. Evaluation level. 1-4 correct answers.</p>
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Author	Published in	Title	Volume of a periodical or publication	Place of publishing, publishing house, or Internet reference
Compulsory literature				
Pundzius J ir kt.	2013	Chirurgija	I and II volumes	Kaunas, UAB „Vita Litera“
Strupas K.	2004	Peritonitas	Monography	Vilnius, VU leidykla
Strupas K.	2013	Kepenų transplantacija	Monography	Vilnius, VU leidykla
Doherty G.M.	2015	Book	Book	The McGraw-Hill Education http://accessmedicine.mhmedical.com/book.aspx?bookid=1202
Brunnicardi F.C. et al.	2015	Schwartz's Principles of Surgery, 10 Edition	Book	The McGraw-Hill Education http://accessmedicine.mhmedical.com/book.aspx?bookid=980
Different authors	2010	Klinikinė gastroenterologija	Book	Vilnius
Different authors	2014	Klinikinė hepatologija	Book	Vilnius
Dan L. Longo Anthony S. Fauci		-Harrison's Gastroenterology and Hepatology, link		https://dustygerbera.files.wordpress.com/2016/10/harrison_s_gastroenterology_and_hepatology.pdf
Supplementary literature				

Beiša V.	2006	Skyd liaukės chirurgija	Practical book	Vilnius, Inforastras
Beiša V.	2008	Pirminio hiperparatiroidizmo diagnostika ir chirurginis gydymas	Practical book	Vilnius, Inforastras
Noreika L.	2002	Pilvaplėvės topografija	Practical book	Vilnius, VU leidykla
Pundzius J.	2008	Klinikinis pilvo tyrimas	Practical book	Vilnius, Charibdė
Žeromskas P., Poškus E.	2010	Chirurginės koloproktologijos konspektai	Practical book	Vilnius, VU leidykla
Brimas G.	2005	Chirurginis nutukimo gydymas	Practical book	Vilnius, Ciklonas
Simutis G.	2005	Tulžies pūslės ir latakų chirurginės ligos	Practical book	Vilnius, VU leidykla
Strupas K., Simutis G., Kontrimavičiūtė E., V.Uvarovas	2008	Klinikinės chirurgijos diagnostikos ir gydymo vertinimo sistemos	Practical book	Kaunas, Vitae Litera
Šileikis A.	2008	Ūminis pankreatitas	Practical book	Vilnius, VU leidykla
Townsend C. Jr. et al.	2012	Sabiston textbook of surgery, 19th edition	Book	Saunders, Elsevier
Speičienė D., Valantinas J.	2009	Kepenų cirozė. Jos pasekmės ir komplikacijos: diagnostika ir gydymas	Practical book	Vilnius
Denapienė G.	2009	Opinis kolitas	Practical book	Vilnius
D. Speičienė	2007	Lėtinių hepatitų gydymas	Practical book	Vilnius
D. Speičienė	2006	Lėtiniai hepatitai Klasifikacija, klinika, diagnostika	Practical book	Vilnius
Z. Kučinskienė	2012	Laboratorinė diagnostika	Book	Vilnius
<p><u>Liks:</u> www.ueg.eu- guidelines ir education www.esge.com webinars, elearning https://biblioteka.vu.lt/e.istekliai/?browse=sub23 UpToDate.</p>				