



**The Department of Internal Medicine No2**  
**The syllabus for the discipline «Internal medicine»**

<b>1. General information</b>	
<b>Faculty</b>	Medical
<b>Educational program</b> (branch, specialty, level of higher education, form of training)	22 "HEALTH CARE", 222 medicine, the second (Magister) level of higher education, full-time education
Academic year	2023-2024
<b>The name of discipline, code</b> (e-mail address on the website of Danylo Halytsky Lviv National Medical University)	<b>«Current issues of gastroenterology» (BF1. 64)</b> <a href="https://new.meduniv.lviv.ua/kafedry/kafedra-vnutrishnoyi-medytsyny-2/">https://new.meduniv.lviv.ua/kafedry/kafedra-vnutrishnoyi-medytsyny-2/</a>
Department (name, address, phone number, E-mail)	The Department of Internal medicine No 2 1, Uzhhorodska Street, Lviv <a href="mailto:kaf_internalmed_2@meduniv.lviv.ua">kaf_internalmed_2@meduniv.lviv.ua</a>
The Head of the department (contact E-mail address)	Associate Professor Komarytsya O.Y. <a href="mailto:komar_or@ukr.net">komar_or@ukr.net</a>
Year of study (the year of study the discipline)	Fifth
Semester (the semesters of study the discipline)	IX
Type of discipline (mandatory / optional)	Optional
Teachers (names, surnames, scientific degrees and titles of teachers who teach the discipline, contact E-mail address)	Olga Fedyk, Assistant Professor, <a href="mailto:fedyk_olia@ukr.net">fedyk_olia@ukr.net</a> ;
Erasmus yes/no (availability of discipline for students within the program Erasmus+)	Yes
Person responsible for the syllabus (person, to whom comments about the syllabus may be addressed, contact E-mail)	Associate Professor Komarytsya O.Y. <a href="mailto:komar_or@ukr.net">komar_or@ukr.net</a> Professor Radchenko O.M. <a href="mailto:olradchenko@gmail.com">olradchenko@gmail.com</a>
Number of ECTS credits	2.0
Number of hours (lectures / practical classes / individual work of students)	0/26/34 – 60 hours
Language of teaching	Ukrainian, English
Information about consultations	Individual or group according to student's request
Address, telephone, work regulations of the clinical base, office... (if necessary)	Clinical base Non-profit Municipal Enterprise "The 1st City Clinical Hospital named after Prince Lev" 1, Uzhhorodska Street, Lviv, 79019, Phone number 260-09-13

## 2. Short summary to the course

The organization of the educational process is carried out according to the European Credit Transfer System of the Organization of the Educational Process (ECTS). The program of the optional discipline "Current issues of gastroenterology" during the 5<sup>th</sup> year provides for the improvement of knowledge on current issues of theory and practice of the most common diseases of gastrointestinal tract (GIT) and syndromes in gastroenterology for the improvement of treatment, prophylaxis, quality of life and public health.

## 3. The purpose and objectives of the course

**The purpose** of the optional discipline "Current issues of gastroenterology" is the formation of the ability to apply the acquired knowledge, abilities, skills and understanding for typical doctor's tasks solving in the field of health care. The scope of these tasks is provided by defined lists of syndromes and symptoms of diseases, emergency conditions and diseases that require special management of a patient, diagnostic tests and medical manipulations.

**The main objectives** of the optional discipline "Current issues of gastroenterology" include improvement of examination of patients with diseases of digestive organs, interpretation of examination results, formulation and justification of preliminary and clinical diagnoses; drawing up an examination plan and justifying the appointment of diagnostic methods in gastroenterology, evaluating the results of additional research methods; carrying out differential diagnostics; appointment of treatment for studied diseases of the digestive organs; the ability to conduct primary and secondary prevention and provide emergency care

## Competencies and learning outcomes that should be formed after the study of the discipline

### *General competencies (GC) are listed below:*

1. Ability to think abstractly, analyse and synthesize.
2. Ability to learn and master the modern knowledge.
3. Ability to apply the knowledge in practical situations.
4. Cognition and understanding of the subject area and understanding of the professional activity.
5. Ability to adapt and to act in a new situation.
6. Ability to make the well-grounded decisions.
7. Ability to work in a team.
8. Interpersonal skills.
9. Ability to use of information and communication technologies.
10. Ability to search, process, and analyse information from various sources.
11. Definiteness and perseverance in terms of tasks and responsibilities.
12. Awareness of equal opportunities and gender issues.
13. Ability to exercise their rights and responsibilities as a member of society, to realize the values of civil society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
14. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, techniques and technologies, activities for active recreation and healthy living.

### *Professional special competencies (SC) are listed below:*

1. Ability to collect medical information about the patient and analyse clinical data.
2. Ability to determine the required list of laboratory and instrumental studies and evaluate the results.
3. Ability to make a preliminary diagnosis and clinical diagnosis.
4. Ability to determine need in activity limitation during treatment and prophylaxis of various diseases.
5. Ability to determine the need for special diet or medical nutrition during treatment and prophylaxis.
6. Ability to determine the approach, principles, and regimen during treatment and prophylaxis.
7. Ability to diagnose urgencies and emergencies.
8. Ability to determine the need and way of emergent medical care.
9. Emergency care skills.

10. Skills to perform the main medical manipulations.
11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.
12. Ability to maintain medical records, including electronic forms.
13. To convey one's own knowledge clearly and ambiguously, conclusions and arguments on health issues and related issues to specialists and non-specialists, in particular to students.
14. Adherence to professional and academic integrity, responsibility for the accuracy of the obtained scientific results.

***Program learning outcomes (PLO) for the discipline are as follows:***

1. To have a thorough knowledge of the structure of professional activity. To carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.
2. Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care.
3. Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for research, critical thinking in the field of medicine and related interdisciplinary problems.
4. To identify leading clinical symptoms and syndromes; according to standard methods, using preliminary data of the patient's medical history, results of physical examination, knowledge about human organism, internal organs and systems, to establish a preliminary diagnosis.
5. To interview a patient about complaints and medical history, to assess the psychomotor and physical development of the patient, to make systemic physical examination, to assess information about the diagnosis, taking into account the patient's age and results of additional tests.
6. To establish a final clinical diagnosis by making reasonable decision and analysis of subjective and objective data of clinical examination, and results of additional test, differential diagnosis, adhering to relevant ethical and legal norms, under the supervision of a physician-manager in health care institutions.
7. To assign and analyse additional mandatory and optional laboratory, functional, and imaging tests in patients with internal diseases for differential diagnosis.
8. To determine the main clinical syndrome and severity of patient's condition by making reasonable decision and assessing patient's condition under any circumstances (in-patient/out-patient setting), including in conditions of emergency and in conditions with lack of information or limited time.
9. To determine the way and principles of treatment (out-patient or in-patient, conservative or surgical) with diseases, taking into account patient's age, adhering to relevant ethical and legal norms, by making reasonable decision that is based on existing algorithms and standard schemes. To expand the standard scheme if necessary and to be able to justify personalized recommendations under the supervision of a doctor in a medical institution.
10. Basing on the final clinical diagnosis, be able to determine the need of activity restriction and specific diet, adhering to the relevant ethical and legal standards, by making reasonable decision in accordance with existing algorithms and standard schemes.
11. To define strategy and provide emergency medical care for a certain time period in accordance with existing clinical protocols and treatment standards.
12. To form rational medical routes of patients; to organize interaction with colleagues and other institutions and organizations; to apply tools for the promotion of medical services on the market, based on the analysis of the needs of the population, in the conditions of functioning of the health care institution, its subdivision, in a competitive environment.
13. To perform medical manipulations in medical institutions, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making reasonable decision, adhering to relevant ethical and legal norms.
14. To determine the state of functioning and limitations of a person's life expectancy, duration of disability with the issuance of relevant documents in the health care institution based on data on the disease and its course, features of professional activity, etc. To maintain medical records of the patient and the population basing on regulatory documents.

15. To plan and to implement a system of anti-epidemic and preventive measures for the occurrence and spread of diseases among the population.
16. To search for the necessary information in the professional literature and databases of other sources, to analyse, to evaluate and to apply this information in practice.
17. To use modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems.
18. To share the knowledge, conclusions and arguments about the health and related issues clearly and unambiguously to professionals and non-specialists.
19. To manage health workflows that are complex, unpredictable and require new strategic approaches, organize the work and professional development of staff based on acquired skills of effective teamwork, leadership positions, good quality, accessibility and fairness, ensuring integrated health care.
20. To speak fluently in Ukrainian and English, both orally and in written form, for the discussion of professional activities, researches, and projects.
21. To make effective decisions on health issues, assess the necessary resources taking into account social, economic, and ethical implications.

#### 4. Prerequisites of the course

**Interdisciplinary links** are based on the study of human anatomy, medical biology, histology, cytology and embryology, pathomorphology, physiology, pathophysiology, medical and biological physics, bioorganic and biological chemistry, microbiology, virology and immunology, pharmacology, radiology and radiation medicine, propaedeutic of internal medicine.

#### 5. Program learning outcomes

##### The list of learning outcomes

Learning outcome code	The content of the learning outcome	Reference to the competence matrix code
Kn-1	To know anatomy, physiology of internal organs and systems, skin, skeleton, connective tissue, and blood	PLO-1-3
Kn-2	To know pathomorphology and pathophysiology of major abnormalities of internal organs and systems, skin, skeleton, connective tissue, and blood	PLO-1-3
Kn-3	To know the biochemistry of major metabolic processes, mechanisms of action of the main classes of medications	PLO-1-3
Kn-4	To know characteristics of the pathogens that may cause internal diseases and the basics of epidemiology	PLO-1-3
Kn-5	To know the methods of evaluation of integrated health indicators and environmental factors; system of preventive measures; socio-economic and biological determinants of health, methods for assessment of doctor's professional activity and quality of medical care	PLO-15-19
Sk-1	To interview complaints and medical history (history of the disease, life history), to perform physical examination	PLO-4-5
Sk-2	To evaluate obtained results of additional tests	PLO-5,7
Sk-3	To perform basic medical manipulations	PLO-13
C-1	To highlight the leading symptoms and syndromes. To diagnose the disease. To plan necessary additional tests. To make differential diagnosis.	PLO-6-8
C-2	To determine diet / plan of nutrition, to plan preventive strategies and tactics.	PLO-9-12
C-3	To administer treatment and to determine its duration.	PLO-9-12
C-4	To diagnose emergencies and to determine the tactics of emergent medical care.	PLO-11
C-5	To determine health indicators; environmental factors; preventive	PLO-15,19

	measures; determinants of health, efficiency of doctor's activity and quality of medical care	
AR-1	To organize the work of medical staff; to form rational medical routes of patients; to interact with colleagues, organizations and institutions.	PLO-18-21
AR-2	To guide by rights, freedoms and responsibilities. To improve professional level. To adhere to the requirements of ethics, bioethics and deontology.	PLO-18-21
AR-3	To form the purposes and structure of personal activity. To adhere to a healthy lifestyle and self-control.	PLO-18-21

### 6. The format and the scope of the course

The format of the course (full-time or distance learning)	Full-time	
Type of training sessions	Number of hours	Number of groups
lectures (L)	0	
practical classes (P)	26	5
seminars	0	
individual work of students (IWS)	34	5

### 7. Topics and content of the course

Study code	Topic	Learning content	Learning outcome code	Teachers
P-1	Traditional and modern diagnostic methods in gastroenterology	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-2	Dysphagia. Upper GI endoscopy.	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-3	Aerophagia, flatulence	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-4	Anorexia, nausea, vomiting	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-5	Hematemesis, melena. Stress ulcers	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-6	Jaundice, hepatomegaly, ascites	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-7	Benign hyperbilirubinemias	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-8	Functional diseases of GIT	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-9	Dietetics in the practice of a gastroenterologist	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-10	Sanatorium-resort treatment of diseases of the digestive organs	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-11	Mass lesions of digestive system	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-12	Directions of scientific researches	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
P-13	Weight gain and weight loss. Credit	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-1	Home self-training to the topic "Traditional and modern diagnostic methods in gastroenterology"	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-2	Home self-training to the topic "Dysphagia. Upper GI endoscopy"	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-3	Home self-training to the topic "Aerophagia, flatulence"	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-4	Home self-training to the topic "Anorexia, nausea, vomiting"	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-5	Home self-training to the topic "Hematemesis, melena. Stress ulcers"	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-1-21	According to the schedule
IWS-6	Home self-training to the topic "Jaundice,	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule

	hepatomegaly, ascites”			
IWS-7	Home self-training to the topic “Benign hyperbilirubinemias”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-8	Home self-training to the topic “Functional diseases fo GIT”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-9	Home self-training to the topic “Dietetics in the practice of a gastroenterologist”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-10	Home self-training to the topic “Sanatorium-resort treatment of diseases of the digestive organs”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-11	Home self-training to the topic “Mass lesions of digestive system”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-12	Home self-training to the topic “Directions of scientific researches”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule
IWS-13	Home self-training to the topic “Weight gain and weight loss”	Kn-1-5, Sk-1-3, C-1-5, AR-1-3	PLO-2,3,11	According to the schedule

**Forms of individual independent work:** report of an abstract/presentation at a practical session, at clinical conferences, report of a medical history at a practical session, writing theses, articles, mastering practical skills, review of scientific literature by topic (8 hours). Independent works from the discipline "Internal Medicine" are completed by students in writing, the implementation control is carried out constantly during the semester in the corresponding practical classes. Verification of the learned material on the subject of independent work is carried out at each practical lesson.

*It is necessary to present the system of organization of classes, the use of interactive methods, educational technologies used for the transfer and acquisition of knowledge, skills and abilities.*

The organization of classes consists of the following blocks: program and information, education and methodical, control, educational research, and auxiliary.

**The program and information block** is presented on the official website of the university.

**The educational and methodical block** includes theoretical lecture materials (available at MISA platform), which are conducted with the use of multimedia presentations. Methodical materials for students and teachers are updated every year and are available both in printed form and electronic form (at MISA platform), which is given to students for individual work at home. The software “Chest pain” and a phantom of the human torso for cardiopulmonary resuscitation are also used. Educational and practical materials also include educational DVD-films about methodology of physical examination prepared by Professor Yavorsky OG, etc., depending on the subject of classes (e.g., invasive diagnostic and therapeutic procedures in cardiology (angiography, stenting, shunting), atlases of clinical diagnosis, instrumental methods of examination etc.).

**The control block** contains materials for the current control of student activities (questions, MCQs at MISA platform).

**The educational and research block** contains topics of creative tasks, abstracts, educational and research tasks, term qualification works, etc. The department stores multimedia materials of student scientific-practical conferences of the medical faculty, which are examples and / or illustrative material for training, in addition, students have the opportunity to participate directly in procedures of echocardiography and ultrasonography of abdominal organs.

**The auxiliary block** is filled with video, audio, multimedia materials and electronic manuals, the materials of which can be processed on portable devices (phone, smartphone, netbook, book reader, etc.). To ensure the independent work of students, they are offered links to electronic resources that can be used.

## **8. Verification of learning outcomes**

### **Current control**

Current control is performed during practical classes and aims to check the assimilation of educational material by students. The forms of assessment of current educational activities are standard, and include control of theoretical and practical training. Current control is based on a test

assessment of the initial level of knowledge, checking home task in written form, and thematic practical work during the class (patient's examination, writing examination protocol, solving clinical cases and level 2 tests). Rating of each practice accounts all types of work provided by the curriculum using a 4-point national scale. The student must receive positive rating for each practice.

Learning outcome code	Type of training code	Method of verifying learning outcomes	Assessment criteria
For example: Kn-1-5, Sk-1-3, C-1-5, AR-1-3	P-1-13, IWS-1-13	The field defines the methods and technologies of assessment of students' knowledge, particularly, a list of all types of work that students are required to perform during practical class and the criteria for their assessment. For example, test control, protocol of patient's examination, demonstration of practical skills, etc. Each evaluation method must be described separately.	<p>«<b>Excellent</b>» («<b>5</b>»): 90-100% answers for format A tests are correct; correct clear, complete and logical answers for the questions about the current topic, including questions and tasks for individual work. Presence of qualitative and complete home task. A student closely links theory to practice and correctly demonstrates practical skills; able to solve clinical cases of increased complexity and to summarize the material. A student correctly conducts physical examination of thematic patient, has the necessary communication skills, and uses the principles of medical deontology.</p> <p>«<b>Good</b>» («<b>4</b>»): 70-89% answers for format A tests are correct; clear and right answers for the questions about the current topic, including questions and tasks for individual work. There is a qualitative home task. A student correctly demonstrates practical skills or makes non-significant mistakes; able to solve typical clinical cases and cases of moderate complexity. A student correctly conducts physical examination of thematic patient, has the necessary practical skills, and makes no fatal mistakes during diagnosis and treatment. A student may communicate with patients and colleagues, using the principles of medical deontology.</p> <p>"<b>Satisfactory</b>" ("<b>3</b>"): 60-69% answers for format A tests are correct. Homework is incomplete or contains mistakes. Inadequate or incomplete answers for the questions about the current topic and individual work. A student cannot build a clear, logical answer; makes significant mistakes when answering and demonstrating practical skills; solves only easy typical clinical cases, has a minimum of necessary practical skills; performs examination and plan treatments with errors that do not threaten the patient's life; has a minimum of communication skills, uses the principles of medical deontology.</p> <p>"<b>Unsatisfactory</b>" ("<b>2</b>"): less than 60% answers for format A tests are correct. The home task is written very bad or is absent. A student does not know the material of the current topic, cannot answer independently and logically to additional questions, does not understand the content of the material; makes significant mistakes when answering and demonstrating practical skills; conducts examination and plan treatment with fatal consequences for a patient; has insufficient communication or verbal skills; insufficiently uses the principles of medical deontology.</p>
<b>Final control</b>			
General rating system	Participation in the work during the semester		
Rating scales	Traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale.		
Admission to the final control	The student attended all practical classes and received at least 122 points for the semester		
Type of final control	Methods of final control	Passing criteria	
Credit	All topics passed and estimated positively. Rating is converted from a 4-point scale to a 200-point scale in accordance with the "Criteria, rules and procedures for evaluating the results of student's learning activities"	At least 122 points for the course.	

## Criteria of assessment of the examination / differentiated credit

Examination	None
Differentiated credit	

### 9. Course policy

In teaching and studying the course of Internal Medicine 5th year, all teachers and students adhere to the policy of academic integrity, intolerance to violations of medical and human deontology and ethics. Examination of patients at the clinical bases of the department complies with the principles of the Helsinki Declaration of the World Medical Association on ethical principles of scientific medical research with human participation (1964, 2004, 2013) and Orders of the Ministry of Health of Ukraine No 690 (2009), No 944 (2009) and No 616 (2012).

### 10. Literature

#### Basic:

1. eMPendium – electronic compendium "Internal diseases" in open access [Electronic resource]. Access mode: <https://empendium.com/mcmtextbook/>.
2. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. - 1440 p.
3. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 p.
4. Kasper, Dennis L., Anthony S. Fauci, Stephen L. Hauser, Dan L. 1949- Longo, J. Larry Jameson, and Joseph Loscalzo. Harrison's Principles of Internal Medicine. 19th edition. New York: McGraw Hill Education, 2015.

#### Additional:

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2. Gastric Cancer as Preventable Disease. / Rugge M, Genta RM, Di Mario F, El-Omar EM, El-Serag HB, Fassan M, Hunt RH, Kuipers EJ, Malfertheiner P, Sugano K, Graham DY. // Clin Gastroenterol Hepatol. – 2017. – Vol. 15(12). – P. 1833-1843. doi: 10.1016/j.cgh.2017.05.023
3. Prevalence of Antibiotic Resistance in Helicobacter pylori: A Systematic Review and Meta-analysis in World Health Organization Regions./ Savoldi A, Carrara E, Graham DY, Conti M, Tacconelli E. // Gastroenterology. – 2018. – Vol. 155(5). – P. 1372-1382.e17. doi: 10.1053/j.gastro.2018.07.007.
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7. Kulnigg-Dabsch S. Autoimmune gastritis. // Wien Med Wochenschr. – 2016. – Vol. 166 (13-14). – P. 424-430.
8. Kyoto global consensus report on Helicobacter pylori gastritis. / Sugano K, Tack J, Kuipers EJ, et al., faculty members of Kyoto Global Consensus Conference. // Gut. – 2015. – Vol. 64(9). – P. 1353-67.
9. Reactive gastropathy is associated with inflammatory conditions throughout the gastrointestinal tract. / Maguilnik I, Neumann WL, Sonnenberg A, Genta RM. // Aliment Pharmacol Ther. – 2012. – Vol. 36(8). – P. 736-43
10. Peptic Ulcer Disease: Introduction. Johns Hopkins Medicine 600 North Wolfe Street, Baltimore, Maryland 21287 <https://www.hopkinsmedicine.org>
11. Perforated and bleeding peptic ulcer: WSES guidelines. / Tarasconi A, Coccolini F, Biffl WL, et al. // World J Emerg Surg. – 2020. – Vol. 15:3. doi: 10.1186/s13017-019-0283-9.
12. ACG clinical guidelines: diagnosis and management of celiac disease. / Rubio-Tapia A, Hill ID, Kelly CP, Calderwood AH, Murray JA, American College of Gastroenterology // Am J Gastroenterol. – 2013. – Vol. 108(5). – P. 656-76; quiz 677
13. Green PH, Lebowhl B, Greywoode R. Celiac disease. // J Allergy Clin Immunol. – 2015. – Vol. 135(5). – P. 1099-106; quiz 1107.
14. Coeliac disease. / Glissen Brown JR, Singh P. // Paediatr Int Child Health. – 2019. – Vol. 39(1). – P. 23-31.
15. World Gastroenterology Organisation Global Guideline. Inflammatory bowel disease: a global perspective. Munich, Germany: World Gastroenterology Organisation (WGO); 2015. <https://www.worldgastroenterology.org/guidelines/global-guidelines/inflammatory-bowel-disease-ibd/inflammatory-bowel-disease-ibd-english>
16. American Gastroenterological Association medical position statement: perianal Crohn's disease. // Gastroenterology. – 2003. – Vol. 125(5). – P. 1503-1507.
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18. ACR appropriateness criteria right upper quadrant pain. / Yarmish GM, Smith MP, Rosen MP, et al. // J Am Coll Radiol. – 2014. – Vol. 11(3). – P. 316-22.
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24. European Association For The Study Of The Liver. EASL clinical practice guidelines: Management of chronic hepatitis B virus infection. // *J Hepatol*. – 2012. – Vol. 57(1). – P. 167-185
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## **11. Equipment, logistics and software equipment of the discipline / course**

1. Working curriculum of the discipline.
2. Plans for practical classes and individual student's work.
3. Recommendations and guides for learning the course of internal medicine for students and tutors, and for individual work of students (Recommendations and guides for writing of patient's medical record during the course of Internal Medicine).
4. Tests (MCQs) and clinical cases for practical classes.
5. Models, mannequins.
6. Multimedia equipment, presentations for training.
7. A training simulation centre and high-tech simulation classes are used to practice practical skills.

## 12. Additional information

For other information important for students that is not included into the standard description, for example, contact details of the person responsible for the educational process at the department, information about the scientific circle of the department, information about routes, information about the need to equip themselves with occupational safety; information about the place of classes; please link to the university website and page of the department: [https://new.meduniv.lviv.ua/kafedry/kafedra-vnutrishnoyi-medytsyny-2/kaf\\_internalmed\\_2@meduniv.lviv.ua](https://new.meduniv.lviv.ua/kafedry/kafedra-vnutrishnoyi-medytsyny-2/kaf_internalmed_2@meduniv.lviv.ua)  
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A person responsible for the work in the student scientific circle: Professor Dzis Y.I. [yevhendzis@gmail.com](mailto:yevhendzis@gmail.com)

The syllabus was composed by

Professor Olena Radchenko

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