

Odessa National Medical University
International Faculty
Department of Internal Medicine #2 with postgraduate training

Syllabus
“Internal Medicine”

Credit hours	135 h (4,5 credits)
Semester, year	IX–X 5
Days, time, place	Monday – Friday 4 - 6 acad. hours, from 08.30 to 13.30 Center of Reconstructive and Restorative Medicine (University clinic) ONMedU, Department of Internal Diseases
Tutors	The Head of the Department: Voloshyna Olena Borysivna, Doctor of Medicine, Professor. Professor of the Department: Tykhonova Susanna Adolfivna, Doctor of Medicine, Professor. Associate professors of the Department: Khyzhnyak Olena Volodymirivna, PhD in Medicine; Kholopov Leonid Semenovich, PhD in Medicine; Iablonska Victoriia Borysivna, PhD in Medicine.
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Working place	Center of Reconstructive and Restorative Medicine (University clinic) ONMedU, 4-th floor: Department of Internal Diseases: rooms №№ 24a-b, 25, 30, 31, 35a, 35b (methodical); lecture room; Ground floor – Associate professor’s room; 1-st floor: 3 study rooms and 1 room for practical skills mastering.
Consultation	<i>Face-to-face:</i> every Thursday from 14.00 to 17.00. <i>On-line:</i> every Thursday from 16.00 to 18.00 (the tutor of the group determines the time and applicants quantity that can clear academic dept and receive consultation), Saturday from 09.00 to 14.00.

COMMUNICATION

Communication with applicants will be carried out in the classroom (in person).

During distance learning, communication is carried out through the Microsoft Teams platform, as well as through e-mail correspondence, Viber/Telegram/WhatsApp messengers (through groups created in Viber/Telegram/WhatsApp for each group, separately through the group lead).

COURSE ANNOTATION

The subject of the discipline "Internal Medicine" (IM5) is the study of prevention, diagnosis and treatment of diseases in the clinic of Internal Medicine (IM) in 4 sections: 1) basics of diagnosis, treatment and prevention of diseases of the musculoskeletal system and connective tissue; 2) basics of diagnosis, treatment and prevention of diseases of the urinary system; 3) basics of diagnosis, treatment and prevention of respiratory diseases; 4) basics of diagnosis, treatment and prevention of diseases of the digestive system.

Pre-requisites of the course

Discipline IM5 is based on applicant's knowledge from IM according to study plan of 4 course, propaedeutics of IM and pediatrics, general surgery and fundamental disciplines (human anatomy, physiology and pathophysiology, microbiology, virusology and immunology, radiology and pharmacology).

Post-requisites of the course

Acquired knowledge, skills and competences are the framework for further study on 6-th course IM, emergency medicine, surgery, pediatrics and infectious diseases and are the basis for continuous professional post-graduate education.

Aim of the course: mastering by the applicant of higher education of the second level of knowledge and the formation of elements of professional competencies in the field of internal medicine, in particular: rheumatology, nephrology, pulmonology, gastroenterology, and diseases of internal organs during war and peacetime disasters; improvement of skills and competencies acquired in the study of previous disciplines.

Tasks for IM5 discipline:

1. Formation of skills and abilities: diagnostics, differential diagnostics and principles of management of adult patients with the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

2. Improving the skills of substantiating the clinical diagnosis, drawing up a plan of laboratory and instrumental studies in the management of adult patients with the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

3. Mastering the ability to determine the tactics of emergency care, treatment and prevention in adult patients with the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

Outcome results:

As a result of mastering IM5 discipline content applicants must:

- **know:** etiology, pathogenesis, typical clinical manifestations, diagnosis, principles of differential diagnosis, principles and modern standards of treatment and prevention in adult patients with the most common rheumatological, nephrological, pulmonological and gastroenterological diseases;

- be able to:

1. Communicate with the patient and his relatives (guardians), collect complaints, anamnesis of life and diseases, determine risk factors for the development and progression of the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

2. To evaluate the general condition of the patient (physical and psychomotor), to provide preventive recommendations on healthy nutrition, optimal level of physical activity, self-control and self-care to adult patients with the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

3. Conduct clinical examination of adult patients in accordance with modern methods and standards.

4. Analyze and interpret the results of laboratory, functional and instrumental studies.

5. Develop a program of differential diagnosis and justify the clinical diagnosis.

6. Determine the tactics and provide emergency medical care for the most common rheumatological, nephrological, pulmonary and gastroenterological diseases.

7. Determine the nature and principles of treatment of adult patients based on a preliminary clinical diagnosis, adhering to the relevant ethical and legal standards, by making an informed decision according to existing algorithms and standards.

8. Perform medical manipulations for common diseases in adults.

9. Maintain medical records for the most common rheumatological, nephrological, pulmonological and gastroenterological diseases.

COURSE DESCRIPTION

Forms of training

Course of IM5 consists of lectures - 10 hours, practical lessons (PL) - 80 hours (of which 4 hours - differential credit), organization of independent applicant's work of (IW) - 45 hours.

Teaching methods: the organization of PL from IM is aimed at making the applicant a participant in the process of providing medical care to patients from the moment of their hospitalization, examination, diagnosis and treatment to discharge from the hospital, providing conditions for mastering professional practical skills; skills of working in a team of participants in the process of providing medical care; and to form in the student an understanding of responsibility for the level of their training, its improvement during training and professional activity:

- At 1-st PL of current chapter the applicant is provided with a detailed work plan, which includes: a list of studies that the applicant must master; algorithms of examinations and diagnosis, treatment, prevention in accordance with the standards of evidence-based medicine; list of thematic patients for curation during the study of the section; determining the time for reporting the patient's medical history in the study group, at clinical council, practical conferences.
- The applicant must curate patients with diseases and conditions in accordance with the thematic PL plan; curation of the thematic patient provides: 1) clarification of the patient's complaints, conducting a survey of organs and systems, studying the history of the disease and life; 2) conducting a physical examination of the patient and determining the main symptoms and syndromes of the disease; 3) analysis of laboratory and instrumental examination data; 4) formulation of the diagnosis; 5) appointment of treatment with filling in the educational list of appointments; 6) determination of primary and secondary prevention measures; 7) report on the results of examination of the patient in the study group, analysis under the guidance of the teacher and with the participation of a team of applicants of the group correctness of diagnosis, differential diagnosis, scheduled examination, treatment tactics, assessment of prognosis and performance, prevention; if it is not possible to provide supervision of thematic patients on the PL topic, applicants fill in the educational history of the disease, using the bank of thematic patients of the Department.
- Applicants are recommended to fill in protocols during the PL, in which it is necessary to enter brief information about the patients examined during the PL, diagnosis, examination plan and prescribed treatment. Daily patient examination protocols are provided to the teacher for monitoring.
- Simulative education: applicants are recommended to conduct simulation training protocols using the Patient Cardiorespiratory Simulator (PCRS), which provides the opportunity to practice 50 clinical scenarios of cardiopulmonary auscultation skills.

Content of studied discipline

Topic 1. Rheumatic fever.

Topic 2. Rheumatoid arthritis.

Topic 3. Systemic diseases of connective tissue.

Topic 4. Systemic vasculitis.

Topic 5. Osteoarthritis.

Topic 6. Ankylosing spondylitis. Reactive arthritis.

Topic 7. Gout.

Topic 8. Glomerulonephritis. Renal amyloidosis.

Topic 9. Pyelonephritis, tubulointerstitial nephritis.

Topic 10. Chronic kidney disease.

Topic 11. Acute kidney injury.

Topic 12. Chronic obstructive pulmonary disease.

Topic 13. Bronchial asthma.

- Topic 14. Pneumonias.
- Topic 15. Plevritis.
- Topic 16. Infectious destructive disease of the bronchopulmonary system.
- Topic 17. Pulmonary insufficiency.
- Topic 18. Gastroesophageal reflux disease.
- Topic 19. Gastric dyspepsia and chronic gastritis.
- Topic 20. Ulcer disease and other peptic ulcers of stomach and duodenum.
- Topic 21. Disease of small bowel : coeliac disease and other enteropathy.
- Topic 22. Chronic colon diseases: IBS and nonspecific colitis.
- Topic 23. Gallstone disease, chronic cholecystitis and functional biliar dyskinesies.
- Topic 24. Chronic hepatitis.
- Topic 25. Cirrhosis of liver.
- Topic 26. Chronic pancreatitis.

List of recommended literature:

Basic:

1. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. – Elsevier, 2018. – 1440 p.
2. Internal Medicine = Внутрішня медицина. Т1: Підручник для студентів медичних і фармацевтичних факультетів вищої освіти закладів України. Рекомендовано вченою радою ВНМУ ім М. Пирогова / за ред.: Станіславчук М.А., Сєркова В.К.— 2019. — 408 с.
3. Internal Medicine=Внутрішня медицина. Т2: Підручник для студентів медичних і фармацевтичних факультетів вищої освіти закладів України. Рекомендовано вченою радою ВНМУ ім М. Пирогова / Станіславчук М.А., Сєркова В.К. (за ред.)- 2019. — 360 с.
4. Medical diagnosis and treatment, 48th edition / M.A. Papadakis, S.J. McPhee. - Mc Grow Hill Education, 2019. - 1884 p.
5. The Brigham Intensive Review of Internal Medicine, 3d edition / A.K.Singh, J. Loscalzo. Elsevier, 2019. – 1283 p.
6. Rheumatology Secrets, 4th edition / S.G. West, J. Kolfenbach. - Elsevier, 2020. - 744 p.
7. Comprehensive Clinical Nephrology, 6th edition / J. Feehally, J. Floege, M. Tonelli, R.J. Johnson. – Elsevier, 2019. – 1570 p.
8. Essentials of Clinical Pulmonology / P.L. Shah, F. J. Herth, Y.C. Garry Lee, G.J. Criner. – CRC Press, 2019. – 755 p.
9. Evidence-based Gastroenterology and Hepatology, 4th edition / John W. D. McDonald, Brian G. Feagan, Rajiv Jalan, Peter J. Kahrilas – Wiley Blackwell, 2019. – 806 p.
10. Handbook of Liver Disease, 4th edition / Lawrence S. Friedman, Paul Martin. – Elsevier, 2018. – 512 p.

Additional:

1. Diagnosis and Treatment of Adults with Community-acquired Pneumonia. An Official Clinical Practice Guideline of the American Thoracic Society and Infectious Diseases Society of America [Електронний ресурс] / [JP Metlay Joshua P, GW Waterer, LC Ann та ін.]. - 2019. - Режим доступу до ресурсу: <https://www.atsjournals.org/doi/ref/10.1164/rccm.201908-1581ST>
2. Macleod's Clinical Examination, 14th edition. Ed. by J. Alastair Innes, A.R. Dover, K. Fairhurst. Elsevier - 2018. - 402 p.
3. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 p.
4. Hutchison's Clinical Methods, 24th edition / M. Glynn, W.M. Drake. – Elsevier, 2018 – 506 p.
5. Making Sence of Lung Function Tests, 2d edition / J. Dakin, M. Mottershaw, E. Kourteli. – CRC Press, 2017. – 204 p.

6. Diagnostic and Therapeutic Procedures in Gastroenterology: An Illustrated Guide, 2d edition / S. Sridhar & G. Y. Wu. – Humana Press, 2019. – 671 p.

Electronic information recourses:

1. <https://www.aasld.org> – American Association of Study Liver Diseases
2. <http://www.eagen.org/> - European Association for Gastroenterology, Endoscopy and Nutrition
3. <http://www.ers-education.org/guidelines.aspx> - European Respiratory Society
4. <http://www.gastro.org/> - American Gastroenterological Association (AGA)
5. www.ginasthma.org – Global Initiative for Asthma
6. <http://goldcopd.org>. – Global Initiative for COPD
7. www.ama-assn.org – [American Medical Association](http://www.ama-assn.org)
8. www.who.int – [World Health Organization](http://www.who.int)
9. <http://bma.org.uk> – [British Medical Association](http://bma.org.uk)

Informational supply:

Electronic library of ONMedU: links to methodical guidelines for lectures and practical lessons, methodical recommendations.

Repository of ONMedU: scientific journals, thesis abstracts.

EVALUATION

assessment during practical lessons:

1. Assessment of theoretical knowledge on the topic of the lesson:
 - methods: survey, solving a clinical case
 - maximal mark - 5, minimal mark - 3, unsatisfactory mark - 2.
2. Assessment of practical skills and manipulations on the topic of the lesson:
 - methods: assessment of the correctness of practical skills
 - maximal mark - 5, minimal mark - 3, unsatisfactory mark - 2.
3. Evaluation of work with a thematic patient:
 - methods: assessment of: a) communication skills with the patient and his relatives, b) completeness and correctness of the appointment and interpretation of laboratory and instrumental studies, c) compliance with the algorithm of differential diagnosis, d) justification of the clinical diagnosis, e) composing a treatment plan in accordance with modern standards;
 - maximal mark - 5, minimal mark - 3, unsatisfactory mark - 2.

The mark for one practical lesson is the arithmetic mean of all components and can only have an integer value (5, 4, 3, 2), which is rounded by the statistical method.

Criteria for the current assessment during the practical lesson

Grade	Assessment criteria
«5»	The applicant is fluent in the material, actively participates in the discussion and solution of the situational clinical case, confidently demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«4»	The applicant is good in the material, participates in the discussion and solution of the situational clinical case, demonstrates practical skills during the examination of

	the patient and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
«3»	The applicant has insufficient knowledge of the material, hesitantly participates in the discussion and solution of the situational clinical case, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with significant errors.
«2»	The applicant does not know the material, does not participate in the discussion and solution of the situational clinical case, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental studies.

Only those applicants who have fulfilled the requirements of the curriculum in the discipline, have no academic debt and their average score for current academic activities in the discipline is at least 3.00 are allowed to take the final control in the form of a differentiated test.

Assessment of learning outcomes during differential credit

Content of assessed activity	Points
Answer to theoretical questions.	2
A practical task based on the OSCE type.	3

Criteria for the learning outcomes assessment during final control (differential credit)

Grade	Assessment criteria
Excellent	The applicant correctly, accurately and fully completed all the tasks of the final control, clearly and logically answered the questions. Thoroughly and comprehensively knows the content of theoretical material, fluent in professional and scientific terminology. Logically thinks and formulates an answer, freely uses the acquired theoretical knowledge in the analysis of practical tasks. When solving a clinical problem, correctly interpreted the anamnesis data, the results of clinical, laboratory and instrumental studies, correctly answered all the questions posed and convincingly justified his/her point of view, could offer and justify an alternative solution to certain issues. When solving a practical task of the OSCE type, correctly demonstrated the implementation of practical skills, accurately followed the algorithm for their implementation.
Good	The applicant has completed all the tasks of the final control, clearly and logically answered the questions. Sufficiently deeply and comprehensively knows the content of theoretical issues, knows professional and scientific terminology. Thinks logically and formulates an answer, uses the acquired theoretical knowledge in the analysis of practical tasks. But when teaching some questions, there is not enough depth and argumentation, makes minor mistakes that are eliminated by the applicant himself when the examiner

	points them out. When solving the clinical task, he/she made minor mistakes or inaccuracies in the interpretation of anamnesis data, the results of clinical, laboratory and instrumental studies, answered all the questions without significant errors, fully justified his/her point of view, but the proposal of an alternative option caused difficulties. When solving a practical task of the OSCE type, he made minor mistakes in the algorithm and technique of performing the skill, corrected at the direction of the teacher.
Satisfactory	The applicant has not fully completed all the tasks of the final control, the answers to additional and leading questions are unclear, vague. Has the basic amount of theoretical knowledge, inaccurately uses professional and scientific terminology. Experiences significant difficulties in building an independent logical answer, in applying theoretical knowledge in the analysis of practical tasks. There are significant errors in the answers. When solving a clinical task, he/she interpreted the anamnesis data, the results of clinical, laboratory and instrumental studies with errors, did not know some details, made inaccuracies in answering questions, did not correctly substantiate his/her answers and interpreted the wording, had difficulties in performing tasks and suggesting alternatives. When solving a practical task of the OSCE type, he made significant errors in the algorithm and technique of performing the skill.
Unsatisfactory	The applicant did not complete the tasks of the final control, in most cases did not answer additional and leading questions. He did not master the main volume of theoretical knowledge, showed a low level of proficiency in professional and scientific terminology. Answers to questions are fragmentary, inconsistent, illogical, unable to apply theoretical knowledge in the analysis of practical tasks. There are a significant number of gross errors in the answers. When solving a clinical case, he/she could not interpret the obtained anamnesis data, the results of clinical, laboratory and instrumental studies, answer the questions, or made significant mistakes in the answers; could not justify his/her decisions or did it unconvincingly. He did not offer alternative options. When solving a practical task of the OSCE type, he/she did not demonstrate or made gross mistakes and errors in the algorithm and technique of performing the skill.

9. Distribution of points received by applicants for higher education

The grade for the discipline consists of 50% of the grade for the current academic activity and 50% of the grade for the differential test.

The obtained grade point average for the discipline for applicants who have successfully completed the work program of the discipline is converted from the traditional four-point scale to points on a 200-point scale, as shown in the table:

Conversion of traditional assessment to multi-point scale

National scale	Point for discipline
«5»	185 – 200
«4»	151 – 184
«3»	120 – 150
«2»	< 120

Independed Applicant's Work (IW)

Includes pre-auditory and post-auditory training of applicants; work in the department of Internal Diseases of the Center of Reconstructive and Restorative Medicine (University clinic) ONMedU, including laboratories and the department of functional diagnostics, interpretation of data of laboratory and instrumental research methods in internal pathology in post-auditory time; mastering practical skills using phantoms, including mastering skills in diagnostics in cardiology and pulmonology with the help of the Harvey simulator and work with patients; individual ISW (report at the scientific-practical conference of the clinic, writing articles, report of the abstract at the practical lesson, etc.).

Teachers of the Department provide the opportunity to perform IW and during the PL and exam monitor and evaluate its implementation. Additionally, the control over the implementation of the IW is carried out when checking the report on the implementation of the IW in the form of a workbook.

COURSE POLICIES

Policy on deadlines and retakes:

- Unexcused absences will be made up as scheduled by the instructor on duty.
- Excused absences are made up on an individual schedule with the permission of the dean.

Policy on academic integrity.

It is obligatory to observe academic integrity by applicants, namely

- independent performance of all types of work, tasks, forms of control provided by the work program of this discipline;
- references to sources of information in case of using ideas, developments, statements, information;
- compliance with copyright and related rights legislation;
- providing reliable information about the results of their own educational (scientific) activities, used research methods and sources of information.

Unacceptable in educational activities for participants in the educational process are

- the use of family or official ties to obtain a positive or higher grade during any form of control of learning outcomes or advantages in scientific work;
- use of prohibited auxiliary materials or technical means (cribs, notes, micro-headphones, smartphones, tablets, etc.) during control measures;
- passing the procedures of control of learning outcomes by fictitious persons

For violation of academic integrity, applicants may be held academically liable:

- lowering the results of the assessment of control work, assessment in the classroom, test, etc.;
- repeated passing of assessment (control work, test, etc.);
- appointment of additional control measures (additional individual tasks, tests, tests, etc.);
- conducting an additional check of other works of the offender's authorship.

Policies for attendance and being late

Attendance of classroom classes (practical lessons, lectures) is a mandatory component for assessing the completeness of the discipline. For objective reasons (for example, illness, epidemic circumstances, international internships), training can take place remotely in agreement with the head of the department, dean. The completed tasks according to the thematic plan should be presented in consultation with the teacher.

Uniform: medical gown that completely covers the outerwear, or medical pajamas, cap, mask, changeable shoes.

Equipment: notebook, pen, phonendoscope.

Health status: applicants with acute infectious diseases, including respiratory diseases, are not allowed to attend the class.

All tasks provided by the program must be completed on time in accordance with the schedule.

An applicant who is late is considered to have missed the lesson for an unexcused reason, on the topic of the lesson is evaluated in additional hours of working off academic debt, while having the right to attend the lesson.

Mobile devices

Usage of telephones and computers without teacher's permission is a violation of discipline. In this case applicant does not receive a mark for the lesson and is obliged rework such a lesson. Mobile devices may be used during online testing only.

Behaviour in auditorium

The course involves teamwork (academic group, department staff, staff of the clinical base of the department). All communication environments are friendly, creative, open to constructive criticism.

The behavior of applicants and teachers in the classrooms should be working and calm, strictly comply with the rules established by the Regulations on Academic Integrity and Ethics of Academic Relations in Odesa National Medical University, in accordance with the Code of Academic Ethics and Relations of the University Community of Odesa National Medical University, the Regulations on the Prevention and Detection of Academic Plagiarism in the Research and Educational Work of Higher Education Applicants, Researchers and Teachers of Odesa National Medical University.