

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

Syllabus

Inpatient Medical Practice “Internal Medicine”

Credit hours	60 h (2,0 credit)
Semester, year	VII-VIII 4
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, Saturday from 09.00 to 14.00. <i>On-line:</i> every Thursday from 16.00 to 18.00 (the tutor of the group determines the time and student’s 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 Discipline «Inpatient Medical Practice – Internal Medicine» (IMP4) is learning prevention, diagnostic, treatment and emergency care in clinics of Internal Medicine (IM) at hospital conditions.

Pre-requisites of the course

Discipline IMP4 is based on applicant's knowledge from Internal Medicine (IM) according to study plan of 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 5-th and 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: to prepare an applicant who is able to perform professional activities, applying the acquired knowledge, skills and abilities in general and professional training according to a specific list of symptoms, syndromes and emergency conditions in the clinic of internal medicine that require special tactics of patient management, laboratory and instrumental studies, medical manipulations to solve problems and problems in the field of medicine, health care and further training and consolidation of practical skills within the goals set in the educational and professional program.

Tasks for IMP4 discipline are to acquire next skills and competencies:

1. Formation of skills and abilities of communication and clinical examination of patients with major diseases of the cardiovascular, endocrine system, blood and hematopoietic organs, and analyse their results;
2. Formation of skills and abilities to establish a preliminary diagnosis of the most common diseases of the cardiovascular, endocrine system, blood and hematopoietic organs;
3. Formation of skills and abilities to draw up a plan of laboratory and instrumental studies of patients with the most common diseases of the cardiovascular, endocrine system, blood and hematopoietic organs and their complications;
4. Improvement of skills in substantiation of clinical diagnosis, differential diagnosis of the most common diseases of the cardiovascular, endocrine system, blood and hematopoietic organs;
5. Mastering the ability to determine the tactics of emergency care, management, treatment and prevention of the most common diseases of the cardiovascular, endocrine system, blood and hematopoietic organs.
6. Mastering the ability to carry out primary and secondary prevention of the most common diseases of the cardiovascular and endocrine systems, blood and hematopoietic organs;
7. Mastering the ability to assess the prognosis and performance of patients with the most common diseases of the cardiovascular and endocrine system, blood and hematopoietic organs;
8. Mastering the ability to perform medical manipulations;
9. Mastering the ability to keep medical records;
10. Mastering the ability to comply with the requirements of ethics, bioethics and deontology in their professional activities.

Outcome results:

As a result of mastering IMP4 discipline content students must:

- **know:** basic principles of diagnosis and treatment of diseases of the cardiovascular, endocrine system, blood and haematopoietic organs based on the principles of evidence-based medicine.

- be able to:

- Communicate with the patient and his/her relatives, perform clinical examination of the patient with diseases of the cardiovascular system, blood and hematopoietic organs, namely, collect data on patient complaints, medical history, life history.

- Evaluate the information on the diagnosis based on the results of laboratory and instrumental studies, namely, to determine the list of necessary clinical, laboratory and instrumental studies and evaluate their results.
- Identify the leading clinical symptom or syndrome. Establish the most likely or syndromic diagnosis of the disease. Prescribe laboratory and instrumental examination of the patient.
- Carry out differential diagnosis of diseases. Establish a preliminary and clinical diagnosis.
- Determine the nature and principles of treatment of patients based on a preliminary clinical diagnosis, in compliance with the relevant ethical and legal standards, by making an informed decision according to existing algorithms and standard schemes.
- Diagnose emergency conditions.
- Determine tactics and provide emergency medical care.
- Perform medical manipulations (according to the list 5).
- Maintain medical records.

COURSE DESCRIPTION

Forms of learning

Course of IMP4 contains practical lessons (36 academic) and independent student work (24 academic hours).

Teaching methods: role-playing games, solving clinical situational tasks, examination of the patient, manipulations according to the list of 5, instruction and practice of skills on dummies, training exercises on differential diagnosis of the most common diseases in the clinic of internal medicine, standardised hybrid therapeutic patient.

Content of studied discipline

Topic 1. Management of patients with major diseases of the cardiovascular system. Substantiation and formulation of clinical diagnosis. Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the cardiovascular system.

Topic 2. Management of patients in the emergency cardiology unit. Emergency care in urgent situations (conditions): in hypertensive crisis and acute coronary syndrome (ACS). Methods of revascularization in ACS without ST-segment elevation. Management of patients with myocardial infarction: measures. Emergency care in acute heart failure (AHF). Emergency care for sudden cardiac death (SCD).

Topic 3. Management of patients with major diseases of the endocrine system. Substantiation and formulation of clinical diagnosis. Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the endocrine system. Emergency care in urgent situations (conditions) of diabetic comas, hyperthyroidism, acute adrenal insufficiency, etc.

Topic 4. Management of patients with major diseases of the blood and hematopoietic organs. Rationale and formulation of clinical diagnosis. Interpretation of general principles of treatment, primary and secondary prevention of major diseases of the blood and hematopoietic organs.

Topic 5. Supervision of patients in the admission department together with the doctor on duty; performing the necessary laboratory, functional, radiological and other studies; participation in consultations of specialists and consultations; implementation of emergency treatment measures.

List of recommended literature:

Basic

1. Hutchison's Clinical Methods, 24th ed. Editors: Glynn M., Drake M.W. - Elsevier, 2018. – 465 p.
2. Davidson's Principles and Practice of Medicine 23rd Edition. Editors: Stuart Ralston, Ian Penman, Mark Strachan Richard Hobson. Elsevier. - 2018. – 1440 p.

3. 2018 ESC Guidelines for the management of patients with ventricular arrhythmias and the prevention of sudden cardiac death DOI: <http://dx.doi.org/10.1093/eurheartj/ehv316>
4. ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation: The Task Force for the management of acute myocardial infarction in patients presenting with ST-segment elevation of the European Society of Cardiology // *European Heart Journal*. – 2018. Vol. 39, Issue 2. – P.119-177.
5. ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure: The Task Force for the diagnosis and treatment of acute and chronic heart failure // *European Heart Journal*. – 2018. Vol. 37, Issue 27. – P. 2129–2200.
6. 2020 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS

Additional literature:

1. ЕКГ у практиці=The ECG in Practice: Навч. посіб. для мед. ун-тів, інст., акад. Рекомендовано Вченою радою ІваноФранківського НМУ / Джон Р. Хемптон; за участю Девіда Едлема. — К., 2018. — 560 с., кольор. вид. (англ., укр.)
2. Order of the Ministry of Health of Ukraine from №1269 from 05.06.2019 "On approval and implementation of medical and technological documents for standardization of emergency medical care", "EMERGENCY MEDICAL CARE: PREHOSPITAL STAGE. NEW CLINICAL PROTOCOL”.
3. Order of the Ministry of Health of Ukraine dated 05.06.2020 № 1311 "On approval of the Model table of equipment of structural units of the emergency medical care system".
4. 2018 ESC Guidelines for the diagnosis and management of syncope // *European Heart Journal*. – 2018. Vol. 39, Issue 21. – P.1883–1948.

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

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

Current control: surveys, testing, assessment of practical skills, assessment of communication skills during a role play, solving situational clinical problems, assessment of activity in the classroom.

Final control: CPE.

Current control assessment during practical lessons:

- Assessment of theoretical knowledge on the topic of the lesson:
 - methods: survey, solving a clinical case
 - assessment: maximal mark - 5, minimal mark - 3, unsatisfactory mark - 2
- Assessment of practical skills and manipulations on the topic of the lesson:

- methods: assessment of the correctness of practical skills performed
- assessment: maximal mark - 5, minimal mark - 3, unsatisfactory mark - 2
- 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
Excellent «5»	The applicant is fluent in the material, actively participates in the discussion and solution of a situational clinical problem, confidently demonstrates practical skills. He/she interprets the data of clinical, laboratory and instrumental studies, expresses his/her opinion on the topic of the lesson, demonstrates clinical thinking.
Good «4»	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills. Interprets the data of clinical, laboratory and instrumental studies correctly with some mistakes, expresses his/her opinion on the topic of the lesson, demonstrates clinical thinking.
Satisfactory «3»	The applicant has insufficient knowledge of the material, is not confident in discussing and solving a situational clinical problem, demonstrates practical skills in analyzing and interpreting clinical, laboratory and instrumental research data with significant errors.
Unsatisfactory «2»	The applicant does not know the material, does not participate in the discussion and solution of a situational clinical problem, does not demonstrate practical skills.

The applicant is admitted to the CPE provided that the requirements of the cross-cutting work program of practice are met and if he or she has received at least 3.00 points for current activities.

Evaluation of the results of the applicants' practice during the final control - complex practical examination (CPE).

The methodology for conducting the final control in the form of the CPE is unified and involves the use of standardized forms. The number of practical skills that are submitted to the CPE corresponds to the number of profiles of Practical Medical Training in the relevant course in the corresponding EPP.

The evaluation of the applicant is carried out according to the checklist. During the CPE, the applicant receives a ticket, and the examiners use a checklist to the corresponding ticket with standard answers and determine which mandatory components of the answer were or were not fulfilled by the applicant.

Each item in the algorithm is assigned a certain number of points depending on its complexity. The proportion (number of points) of each item may vary, depending on the number of items and the complexity of the particular item. Some scenarios may have critical points, if not met, the task is considered incomplete. When formulating the checklist items, ambiguity of understanding should be excluded.

When the applicant performs certain actions, he or she may receive "minus points," specifically:

№	Assessment criteria	Point
1.	An unregulated action or attempt to communicate with the examiner that is not provided for in the task	- 5
2.	The second unregulated action or attempt to communicate with the examiner that is not provided for in the task	- 5

3.	The third unregulated action or attempt to communicate with the examiner, not provided for in the task	-5
4.	The fourth unregulated action or attempt to communicate with the examiner that is not provided for in the task	- 5
5.	More than 4 unregulated actions	- 20
6.	Dangerous action (which will inevitably lead to a deterioration in the patient's condition)	- 20
7.	Unacceptable behavior	- 20
8.	Damage of simulation equipment or inventory	- 20

The maximum score for completing a task at one station is 100 points. The CPE is considered passed if the applicant scores at least 60% of the maximum number of points at each station.

The total grade for the CPE is calculated as the arithmetic mean of all grades received for all profiles. The CPE is held at the Educational and Production Complex of Innovative Teaching Technologies, Informatization and Internal Monitoring of the Quality of Education of the University during the examination sessions at the end of the semester (autumn and spring) according to the schedule.

Distribution of points received by applicants for higher education

The obtained average grade point 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

Four-point scale	Multy-point scale
Excellent «5»	185 – 200
Good «4»	151 – 184
Satisfactory «3»	120 – 150
Unsatisfactory «2»	< 120

A multi-point scale (200-point scale) characterizes the actual performance of each student in mastering the educational component. The conversion of the traditional grade (grade point average for a discipline) into a 200-point scale is performed by the University's Information Technology Department.

Independent applicant's work (IW)

Includes out- and in-auditorium preparation of applicants, work in departments of medical institution. Leader of practice provides a possibility for IW and during CPE controls and assesses its performance. Additionally, control over the implementation of IW is carried out when checking the summary report on the implementation of IMP and the diary.

COURSE POLICIES

Policies concerning deadlines and reexamination

The curriculum of ONMedU provides and sets the schedule for passing and retaking the CPE. The CPE is held at the Educational and Production Complex of Innovative Teaching Technologies, Informatization and Internal Monitoring of the Quality of Education of the University during the examination sessions at the end of the semester (autumn and spring) according to the schedule.

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, students 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) and work in specialized (therapeutic) departments 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 student 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 medical institution and 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.