

ODESA NATIONAL MEDICAL UNIVERSITY

Medical Faculty
Department of Internal Medicine No.2 with postgraduate training

Syllabus of the elective discipline «ASSESSMENT OF THE HUMAN IMMUNE SYSTEM»

Scope of the elective discipline	Total number of hours per discipline: 90 hours, 3 credits. Semester: XI-XII. 6th year of study
Days, time, place of elective discipline	According to the schedule of classes. Auditoriums of the Department, str. Tinista, 8
Academics	Honcharuk Sergiy: doctor of medicine, professor; Viktoriia Osintseva: assistant
Contact Information	Phone: Honcharuk Serhiy Fedorovych 067-480-61-06. E-mail: Sergiy Goncharuk: goncharuks@ukr.net. Online consultations: from 4:00 p.m. to 6:00 p.m. every Thursday, from 9:00 a.m. to 2:00 p.m. every Saturday. A link to an online consultation is provided to each group during classes separately

COMMUNICATION

Communication with applicants will be conducted in the classroom (face-to-face). During distance learning, communication is carried out through the *Microsoft Teams platform*, as well as through e-mail correspondence, Viber messengers (through groups created in Viber for each group, separately through the head of the group).

COURSE ANNOTATION

Subject of study of the discipline "Assessment of the human immune system" is the mechanisms of the functioning of the immune system, clinical and laboratory indicators of the assessment of the immune status.

Prerequisites and post-requisites of the discipline (place of the discipline in the educational program): the educational discipline "Assessment of the human immune system" is based on the study by students of I-V courses of such disciplines as "Medical Biology", "Normal and Pathological Physiology", "Pathomorphology", "Internal Medicine", "Pediatrics". In turn, the educational discipline "Assessment of the human immune system" lays the foundations for studying such disciplines as "Family Medicine", "Physiatrics", "Infectious Diseases", "Oncology", separate topics - "Internal Medicine" and "Pediatrics".

The purpose of the discipline: formation of future doctors' understanding of the patterns of functioning of the immune system, familiarization with the methods of clinical and laboratory diagnosis of immunodeficiency, autoimmune and allergic diseases.

The task of the discipline: learn the clinical signs of immunodeficiency diseases, assess the patient's immune status according to basic immunolaboratory methods and principles of interpretation of leukograms and immunograms, learn modern principles of immunodiagnosis of autoimmune and allergic diseases.

Outcome results:

After completing the study of the educational discipline "Assessment of the human immune system", the applicant **should know:**

- modern methods of assessing the immune system;
- possibilities and limitations of using immunological methods in the clinic;
- the nature of changes in immunological indicators under the influence of various factors;
- features of immunograms in pathologies of immune system functioning;
- clinical symptoms and syndromes of various types of immunopathology and their signs;
- principles of diagnosis of allergic diseases.

Upon completion of the discipline, the applicant **should be able to:**

- interpret leukograms and immunograms;
- diagnose immune disorders in diseases of the immune system on the basis of immunological anamnesis, data of clinical and immunolaboratory examination of patients;
- evaluate the data of immunological and allergological studies, taking into account the leading mechanism of immunological disorders in the genesis of various types of immunological and allergological pathology.

COURSE DESCRIPTION

Forms of training

A total of 90 hours has been allocated to the study of the educational discipline "Assessment of the human immune system". (3 ECTS credits).

The educational discipline "Assessment of the human immune system" will be taught in the form of practical lessons (30 hours), independent work of applicants (60 hours).

During the teaching of the educational discipline "Assessment of the human immune system", a variety of teaching methods will be used: dialogues in the "teacher-applicant" and "applicant-applicant" systems, preparation of essays, presentations at practical lessons.

During the teaching of the discipline, methods of problem presentation, as well as explanatory and illustrative, reproductive and heuristic methods are used.

It is planned to conduct individual and group consultations, which will be carried out through face-to-face meetings, telephone communication, use of e-mail, social networks, Microsoft Teams platforms.

Content of the elective discipline.

- Topic 1. Functioning patterns of the immune system.
- Topic 2. Clinical methods of assessing the human immune status.
- Topic 3. Human cellular immunity state assessment
- Topic 4. Human humoral immunity state assessment.
- Topic 5. Methods of allergy diagnosis.
- Final lesson. Credit.

List of recommended literature (basic).

1. Clinical laboratory diagnostics: a textbook / L.E. Lapovets, G.B. Lebed, O.O. Yastremska and others; under the editorship L.E. Lapovets - K.: VSV "Medicine", 2019. - 472 p.
2. Educational and methodological manual "Clinical immunology": from the discipline "Clinical immunology and allergology" for students of the 5th year of the medical faculty / Dotsenko S.Ya., Rekalov D.G., Shekhovtseva T.G. [etc.]. – Zaporizhzhia, 2019. - 163 p.
3. Abbas A.K., Lichtman E.G., Pillai Sh. Fundamentals of immunology (functions and disorders of the immune system) under science. ed. prof. V.V. Chopyak - K: Medical University "Medicine". - 2020. - 327 p.
4. Clinical immunology and allergology: study guide (University III-IV years) /V.V. Chopyak, G.O. Potemkina, A.M. Gavrylyuk and others. - K.: Medical University "Medicine". - 2017. – 224 p.
5. Chopyak V.V., Potemkina G.O. Gavrylyuk A.M., Tolstyak Y.F., Zubchenko S.O. Modern problems of clinical immunology and allergology in therapeutic practice. - Lviv: "NeoDruk", 2020. - 219 p.

Electronic information recourses:

1. [BMJ Clinical Evidence](http://clinicalevidence.bmj.com) <http://clinicalevidence.bmj.com>
2. [European Society of Cardiology](http://www.escardio.org/) <http://www.escardio.org/>
3. [Medscape from WebMD](http://www.medscape.com) <http://www.medscape.com>
4. [National Institute for Health and Clinical Excellence \(NICE\)](https://www.nice.org.uk/) <https://www.nice.org.uk/>

Information support:

Electronic library of ONMedU: links to the attached methodological guides of practical lessons and independent work.

ONMedU repository: scientific journals, dissertation abstracts.

EVALUATION

Current control: oral questioning, assessment of communication skills, solving situational clinical problems, assessment of activity in the classroom.

Final control: credit for assessing the completeness of the discipline programme with an additional oral examination.

Assessment of current learning activities in a practical lesson:

1. Assessment of theoretical knowledge on the topic of the lesson:
methods: survey, evaluation of activity in the classroom maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.
2. Evaluation of solving clinical situational tasks:
Assessment methods: a) completeness and correctness of appointment and interpretation of laboratory and instrumental studies, c) compliance with the algorithm of differential diagnosis, d) justification of clinical diagnosis, e) drawing up a plan of emergency care plan in accordance with modern standards;
maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

The grade for one practical session 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 current assessment during the practical lesson

Grade	Assessment criteria
Excellent "5"	The applicant is fluent in the material, takes an active part in the discussion and solution of a situational clinical problem, confidently demonstrates practical skills in interpreting clinical, laboratory and instrumental research data, expresses his/her opinion on the topic of the class, demonstrates clinical thinking.
Good "4"	The applicant has a good understanding of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills in interpreting clinical, laboratory and instrumental research data with some errors, expresses his/her opinion on the topic of the class, demonstrates clinical thinking.
Satisfactory "3"	The applicant has insufficient knowledge of the material, is uncertain about participating in the discussion and solving a situational clinical problem, demonstrates practical skills in 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 in interpreting data from clinical, laboratory and instrumental studies.

Assessment of learning outcomes during the credit test

Credit is assigned to an applicant who has completed all the tasks of the work programme of the discipline, actively participated in practical lessons and has a current average grade of at least 3.0 and has no academic debt.

Independent work (IW) of applicants

Applicant's independent work includes preparation for practical lessons, studying educational and scientific literature, writing abstracts and preparing presentations on the topics of practical classes. Independent work is evaluated during the current control of the topic in the corresponding session.

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) 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 to 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 behaviour 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.