MINISTRY OF HEALTH PROTECTION OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY

Faculty of international

Department of General and Military Surgery

Syllabus of the academic discipline
"Transfusion of blood components and preparations in surgery. The use of modern blood substitutes."

<table>
<thead>
<tr>
<th>Scope of the academic discipline</th>
<th>Total number of hours per discipline: 45 hours, 1,5 credits. Semesters: V-VI. 3 years of study.</th>
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<tbody>
<tr>
<td>Days, time, place of educational discipline</td>
<td>According to the schedule of classes. Department of General and Military Surgery. Odesa, str. Pastera 9, ave. Valikhovskiy, 5, Multidisciplinary Medical Center of ONMedU. 1 surgical department, 2 surgical department</td>
</tr>
<tr>
<td>Contact Information</td>
<td>Help by phone: Bilash Oksana Viktorivna, head teacher of the department 093-848-4048. Ilyina-Stognienko Viktoriya Yuriivna, responsible for organizational and educational work of the department 067-971-21-05. Zhebrakovska Maryna Yuriivna, senior laboratory technician of the department 050-316-10-91. E-mail: <a href="mailto:surgdep@onmedu.edu.ua">surgdep@onmedu.edu.ua</a>. Face-to-face consultations: from 2:00 p.m. to 5:00 p.m. every Thursday, from 9:00 a.m. to 2:00 p.m. every Saturday. Online consultations: from 2:00 p.m. to 5:00 p.m. every Thursday, from 9:00 a.m. to 2:00 p.m. every Saturday. The link to the online consultation is provided to each group during classes separately.</td>
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COMMUNICATION

Communication with education seekers 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 Outlook e-mail correspondence.
ABSTRACT OF THE ACADEMIC DISCIPLINE

The subject of the discipline is transfusion of blood components and preparations, indications and contraindications for hemotransfusion surgery, methods of determining blood group and rhesus blood, determination of blood compatibility of donor and recipient, complications of transfusion.

Prerequisites and post-requisites of the discipline (place of the discipline in the educational program):

Prerequisites: Ukrainian language (by professional direction), foreign language (by professional direction), Latin language and medical terminology, medical biology, medical and biological physics, biological and bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, microbiology, virology and immunology.

Post-requisites: surgery, traumatology and orthopedics, urology, neurosurgery, anesthesiology and intensive care, emergency and urgent medical care.

The purpose of the discipline: Mastery by the acquirer of knowledge and the formation of elements of professional competences in the field of surgery, and improvement of skills and competences acquired during the study of previous disciplines.

Tasks of the discipline:

1. Formation of skills and abilities: determination of blood group and Rh-affinity of blood, blood transfusion, use of blood substitutes.
2. Mastering the skills of determining the blood group and Rh-affinity of blood, performing group, individual and biological compatibility of the donor and the recipient.
3. Mastering the ability to determine the tactics of blood transfusion and the use of blood substitutes.

Expected results:

As a result of studying the academic discipline, the education seeker must:

Know: antigenic systems of human blood, determination of blood group and Rh-affinity of human blood, determination of group, individual and biological compatibility of donor and recipient, use of modern blood substitutes.

Be able:

- Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.
- To organize the necessary level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity.

DESCRIPTION OF THE ACADEMIC DISCIPLINE

Forms and methods of education

The discipline will be taught in the form of lectures (0 classroom hours); practical classes (16 classroom hours) organization of the education seeker's independent work (29 hours).

Teaching methods: conversation, solving clinical situational problems, demonstration and practice of manipulation skills according to list 5, instruction and practice of skills on simulation dummies.

Content of the academic discipline:

List of recommended literature:
Content module 1. Physiology of blood.

**Topic 1. Blood as tissue.**

**Topic 2. Antigenic systems of blood.**
Antigenic systems of blood. Cell and plasma antigenic systems. AB0 and Rh -factor system. Oppenheimer's rule.

Content module 2. Transfusion of blood components and preparations.

**Topic 3. Determination of blood group.**

**Topic 4. Blood components and preparations.**

**Topic 5. Blood transfusion.**

**Topic 6. Complications of blood transfusion.**

**Topic 7. Reinfusion of blood. Autohemotransfusion. Donation**

Content module 3. Use of modern blood substitutes.

**Topic 8. Blood substitutes.**
List of recommended literature:

Main:

Additional:

Electronic information resources:
2. www.ama-assn.org - American Medical Association / American Medical Association
3. www.who.int - World Health Organization
4. www.dec.gov.ua/mtd/home/ - State Expert Center of the Ministry of Health of Ukraine
MINISTRY OF HEALTH PROTECTION OF UKRAINE  
ODESSA NATIONAL MEDICAL UNIVERSITY  
Department of General and Military Surgery  

ASSESSMENT


The structure of the current evaluation in the practical lesson:

1. Evaluation of theoretical knowledge on the subject of the lesson:  
   - methods: survey, solving a situational clinical problem;  
   - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
2. Evaluation of practical skills and manipulations on the subject of the lesson:  
   - methods: assessment of the correctness of the performance of practical skills  
   - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

Current evaluation criteria in practical training

<table>
<thead>
<tr>
<th>Rating</th>
<th>Evaluation criteria</th>
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<tbody>
<tr>
<td>&quot;5&quot;</td>
<td>The education seeker is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.</td>
</tr>
<tr>
<td>&quot;4&quot;</td>
<td>The education seeker has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.</td>
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<tr>
<td>&quot;3&quot;</td>
<td>The education seeker does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of a situational clinical problem, demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data with significant errors.</td>
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<tr>
<td>&quot;2&quot;</td>
<td>The education seeker does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills and interpretation of clinical, laboratory and instrumental research data.</td>
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The final control in the form of a credit is evaluated on a two-point scale: - the grade "passed" is awarded to an education seeker who has completed the curriculum of the discipline and has no academic debt; the level of competence is high (creative); – the grade "failed" is assigned to an education seeker who has not completed the curriculum of the discipline, has academic debt (average grade below 3.0 and/or missed classes); the level of competence is low (receptive - productive).

Possibility and conditions of obtaining additional (bonus) points: not provided.

INDEPENDENT WORK OF EDUCATION SEEKERS OF HIGHER EDUCATION

Independent work involves preparation for each practical session.
POLICY OF EDUCATIONAL DISCIPLINE

Absences of classes for non-respectable reasons will be worked out according to the schedule of the teacher on duty.

Absences for valid reasons are worked out according to an individual schedule with the permission of the dean's office.

Academic Integrity Policy:
Education seekers must observe academic integrity, namely:
- independent performance of all types of work, tasks, forms of control provided for by the work program of this educational discipline;
- references to sources of information in case of use of ideas, developments, statements, information;
- compliance with the legislation on copyright and related rights;
- provision of reliable information about the results of one's own educational (scientific) activity, used research methods and sources of information.

Unacceptable in educational activities for participants of the educational process are:
- the use of family or official ties to obtain a positive or higher grade during any form of control of academic performance or academic merit;
- use of prohibited auxiliary materials or technical means (cheat sheets, notes, micro-earphones, telephones, smartphones, tablets, etc.) during control measures;
- going through procedures for monitoring the results of training by fake persons.

For violation of academic integrity, education seekers may be held to the following academic responsibility:
- a decrease in the results of assessment of the control work, assessment in class, credit, etc.;
- retaking the assessment (test, credit, etc.);
- assignment of additional control measures (additional individual tasks, control works, tests, etc.);
- conducting an additional inspection of other works authored by the violator.

Attendance and Tardiness Policy:
Uniform: medical gown, surgical suit, cap, mask, change of footwear.
Equipment: notebook, pen, phonendoscope.
State of health: education seekers suffering from acute infectious diseases, including respiratory diseases, are not allowed to attend classes.
An education seeker who is late for a class can attend it, but if the teacher put "ab" in the journal, he must complete it in the general order.

Use of mobile devices:
Mobile devices may be used by education seekers with the permission of the instructor if they are needed for the assignment.

Behavior in the audience:
The behavior of education seekers and teachers in the classrooms should be working and calm, strictly responsible rules, installed Regulations on academic integrity and ethics of academic relations at Odessa National Medical University, in accordance with the Code of Academic Ethics and University Community Relations of Odessa National Medical University, Regulations on prevention and detection of academic plagiarism in research and educational work of higher education seekers, scientists and teachers Odessa National Medical University.