MINISTRY OF HEALTH PROTECTION OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Faculty of Pharmacy
Department of human anatomy
Syllabus of the academic discipline
"Human Anatomy"

Scope of the academic discipline	Total number of hours per discipline: 90 hours, 3 credits. Semester: I, 1st year of study.
Days, time, place of educational discipline	According to the schedule of classes. Department of human anatomy. Odesa, 3 Valikhovsky Lane, classes are held in 1 and 2 anatomical halls, as well as in study rooms of the department. Lectures are held in large and small anatomical auditoriums. In distance learning on the Teams platform .
Teacher(s)	1. Appelhans Olena. Head of the department, Doctor of Medical Sciences, Professor. 2. Neskoromna Nataliya. Ph.D, Associate Professor. 3. Prus Ruslan. Ph.D, Associate Professor. 4. Antsut Olga, Senior Teacher, Head Teacher of the Department. 5. Antonova Natalya, Senior Teacher, Head of the Museum of Human Anatomy. 7. Kuznyetsova Olena, Senior Teacher. 8. Matyushenko Pylyp, Senior Teacher. 9. Chebotaryova Svitlana, Senior Teacher. 10.Ursu Oleksandr. Senior Teacher. 11. Prus Inna, Assistant/
Contact Information	1. Appelhans O. L. 0674842052 2. Neskoromna N.V. 0936082720 3. Prus R.V. 0680013117 4. Antsut O.A. 0504561236 5. Antonova N.A. 0633547515 6. Kozhuharenko T.I. 0632878972 7. Kuznyetsova O.A. 0632979525 8. Matyushenko P. M. 0672999553 9. Chebotaryova S. O. 0674838985 10. Ursu O.Yu. 0971677773 11. Prus I.V. 0633422433 E-mail anatomy@onmedu.edu.ua Consultations are conducted by the teacher on duty according to the rotation schedule; Tuesday, Thursday - 14.30 - 17.30. (For the period of military time - on-line Teamse from 2:30 p.m. to 4:30 p.m. group "Practice - human anatomy and clinical anatomy")

COMMUNICATION

It is carried out using the e-mail of the department: anatomy@onmedu.edu.ua , as well as using Viber and Telegram messengers and in the Teams chat

ABSTRACT OF THE ACADEMIC DISCIPLINE

Subject study of the discipline "human anatomy" is the science of the form, structure, origin and development of organs, systems and the human body as a whole.

Prerequisites: based on applicants' study of medical biology, histology, cytology and embryology, biophysics, Latin language, ethics, philosophy, ecology and integrated with these disciplines;

Postrequisites: lays the foundations for students to study normal and pathological physiology, pathological anatomy, operative surgery and topographic anatomy, deontology, propaedeutics of clinical disciplines and the formation of skills to apply knowledge of human anatomy in the process of further study of all clinical disciplines and in future professional activities.

The goal of the discipline: it involves each applicant acquiring knowledge of anatomy in the world of natural and scientific ideas about the structure and functions of the human body as a whole, the ability to use the acquired knowledge in the further study of other fundamental sciences of medicine, and in the practical activities of a pharmacist.

Tasks of the discipline : the main tasks of studying the discipline of "Human Anatomy" as a science is a systematic approach to the description of the form, structure of organs, position (topography) of body parts and organs in unity with the performed functions, taking into account the age, gender and individual characteristics of a person; studying the functions of individual organs, systems and the whole organism; study of nervous and endocrine regulation of the activity of the body, its organs and systems; to form students' practical skills in determining and evaluating the functional features of the body; to expand the understanding of the role of the study of human anatomy in other medical disciplines.

Expected results:

Competences and learning outcomes, the formation of which contributes to the discipline (the relationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the standard).

In accordance with the requirements of the discipline standard, applicants acquire the following competencies:

Integral competence (IC):

The ability to solve problems of a research and/or innovative nature in the field of pharmacy and to critically consider and solve practical problems in professional pharmaceutical activity using the provisions, theories and methods of fundamental, chemical, technological, biomedical and socio-economic sciences; integrate knowledge and solve complex issues, formulate judgments based on insufficient or limited information; clearly and unambiguously convey one's own knowledge, conclusions and their validity to a professional and non-professional audience. Ability to continue learning with a high degree of autonomy.

General competences:

GC 01. Ability to think abstractly, analyze and synthesize, learn and be modernly educated.

GC 02. Knowledge and understanding of the subject area and understanding of professional activity.

GC 03. Ability to communicate in the national language both orally and in writing.

GC 05. Ability to evaluate and ensure the quality of the work performed/

GC 10. The ability to act socially responsibly and consciously.

GC 11. Ability to apply knowledge in practical situations.

GC 12. The desire to preserve the environment.

Professional, special competencies:

SC01. Ability to integrate knowledge and solve complex pharmacy problems in broad or multidisciplinary contexts.

SC 04. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments in the field of pharmacy to specialists and non-specialists, in particular to people who are studying.

SC 09. Ability to provide pre-medical assistance to the sick and injured in extreme situations and emergencies.
SC10. The ability to monitor the effectiveness and safety of the population's use of medicines according to data on their clinical and pharmaceutical characteristics.
SC21. The ability to ensure the rational use of prescription and non-prescription drugs in accordance with the physicochemical, pharmacological characteristics, biochemical, pathophysiological features of a particular disease and pharmacotherapeutic schemes of its treatment.
SC30. Ability to diagnose emergency conditions.

Program learning outcomes (PLO):

PLO 01. Have and apply specialized conceptual knowledge in the field of pharmacy and related fields, taking into account modern scientific achievements

PLO 03. Have specialized knowledge and skills/skills for solving professional problems and tasks, including for the purpose of further development of knowledge and procedures in the field of pharmacy.
PLO 09. Formulate, argue, clearly and concretely convey to specialists and non-specialists, including those seeking higher education, information based on one's own knowledge and professional experience, the main trends in the development of world pharmacy and related industries.
PLO 12. Provide pre-medical assistance to patients in emergency situations and victims in extreme situations.
PLO 13. Record cases of side effects when using medicinal products of natural and synthetic origin; evaluate factors that can affect the processes of absorption, distribution, deposition, metabolism and excretion of drugs and are determined by the condition and characteristics of the human body and the pharmaceutical characteristics of drugs.
PLO 32. Analyze information obtained as a result of scientific research, summarize, systematize and use it in professional activities.
PLO 33. To determine the influence of factors that affect the processes of absorption, distribution, deposition, metabolism and excretion of the medicinal product and are caused by the condition, characteristics of the human body and the physicochemical properties of medicinal products.
PLO 34. Use the data of clinical, laboratory and instrumental studies to monitor the effectiveness and safety of the use of medicinal products.
PLO 41. To determine the main clinical syndrome or symptom, which determines the severity of the victim's/victim's condition by making a reasoned decision about the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.
PLO 43. To organize the required level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity.

Know:

- form and the structure of organs united into systems:
- shape and structure of bones (Osteologia);
- bone joints (Arthrologia);
- muscles (Myologia);
- entrails (Splanchnologia);
- the central and peripheral nervous system (including the autonomous department of the peripheral nervous system (Neurologia);
- glands of internal secretion (G landulae endocrinae);
- lymphoid system (System lymphoideum);
- organs of sense (Organa sensoria);
- cardiovascular system (S ystema cardiovasculare);

Be able:

- demonstrate and describe the anatomical structure of human organs and organ systems;
- determine the anatomical relationships of human organs and organ systems on anatomical preparations (topography of organs);
- to be able to evaluate the influence of social conditions and work on the development and structure of the human body ;
- be able to use Latin anatomical terms and their Ukrainian equivalents in accordance with the requirements of the international anatomical nomenclature (Sao Paulo, 1997; Kyiv, 2001);

DESCRIPTION OF THE ACADEMIC DISCIPLINE

Forms and methods of education.

The course will be taught in the form of lectures (10 hours) and practical classes (30 hours), organization of applicant' independent work (60 hours).

Teaching methods include narration, conversation, explanation, testing, independent work with anatomical preparations, simulation training on the electronic " Anatomage ".

Content of the academic discipline:

- musculoskeletal system;
- splanchnology;
- central nervous system, sense organs, cranial nerves;
- cardiovascular system, vessels of the head and neck;
- peripheral nervous system; vessels and nerves of the trunk and limbs.

Recommended literature

The main one

1. Human anatomy: a textbook /V.R. Cherkasov, S.Y. Kravchuk. Vinnytsia: New book, 2020. 656 p.
2. Atlas of human anatomy: 7th edition / Frank G. Netter (bilingual) [science. ed. trans.from English L.R. Mateusz-Watseba, others]. All-Ukrainian. Special "Medytsina"publishing house, 2020. 736 p.
3. Sobotta. Atlas of human anatomy. In 2 volumes. Processing and editing of the Ukrainian edition: V.G. Cherkasov, trans. O.I. Kovalchuk. Kyiv: Ukrainian Medical Bulletin, 2019.

Additional

1. Human anatomy: a textbook in three volumes / edited by prof. V.G. Kovechnikov. Lugansk 2011.
2. Gray's Anatomy/H. V. Carter Henry Gray/ Barnes & Noble, 2018. 1280 p.
3. Test tasks "Step-1" - human anatomy / 5th edition, revised / Edited by V.G. Cherkasova, I.V. Dzevulska I.V., O.I. Kovalchuk Tutorial. 2016. 100 p.
4. Human anatomy. V.G. Cherkasov, S.Yu. Kravchuk – Vinnytsia: Nova kniga, 2015.184 p. (educational and methodical manual).
5. Human anatomy (control of independent preparation for practical classes) for students. higher medical (pharmaceutical) studies. closing IV level of accreditation] / Educational and methodological manual / Edited by V.G. Cherkasova, I.V. Dzevulska I.V., O.I. Kovalchuk
6. Frederic Martini Anatomical atlas of man: Trans. from the 8th Eng. Type [scientificed.trans. V.G. Cherkasov], A-USPH "Medicine", 2017. 128 p. (Atlas)

Electronic information resources

1. **http://anatom.ua**. – the leading resource on Human Anatomy
2. **https://www.primalpictures.com**. – a 3D anatomy resource for educators, students, practitioners and professionals
3. **https://www.visiblebody.com** – resource of the international educational community «Visible

Body»
4. https://3d4medical.com - the world's most advanced 3D anatomy platform
5. https://info.odmu.edu.ua/chair/anatomy/files/6/ua - materials from the course "Human Anatomy"

EVALUATION

Current assessment criteria for practical training:

Rating	Evaluation criteria
Excellent "5"	The applicant is fluent in the material, actively participates in the discussion and solving of tests, situational clinical problems, confidently demonstrates practical skills during the examination and description of the anatomical preparation. Expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
Fine "4"	The applicant has a good command of the material, participates in the discussion and solution of the situational clinical problem, tests, demonstrates practical skills during the examination and description of the anatomical preparation with some errors, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
Satisfactory "3"	The applicant does not have sufficient knowledge of the material, takes part in the discussion and solution of the situational clinical problem without confidence, demonstrates practical skills during the examination and description of the anatomical preparation with significant errors.
Unsatisfactorily "2"	The applicant does not possess the material, does not take part in the discussion and solution of the situational clinical problem, does not answer the tests, does not demonstrate practical skills during the examination and description of the anatomical apparatus.

Only those applicants who have fulfilled the requirements of the training program in the discipline, have no academic debt and their average score for the current educational activity in the discipline is at least 3.00 are admitted to the final control in the form of a differentiated credit.

Criteria for evaluating the results of the applicants' training during the final control - differentiated assessment:

The content of the evaluated activity	Scores
Overview and description of the anatomical preparation of UDRS	1
Answer to 4 (four) theoretical questions.	4

Criteria for evaluating the learning outcomes of applicants on differential credit

Rating	Evaluation criteria
Perfectly "5"	It is presented to a applicant who has worked systematically during the semester, has shown versatile and deep knowledge of the program material during the exam, is able to successfully complete the tasks provided for by the program, has mastered the content of the main and additional literature, has realized the interrelationship of individual sections of the discipline, their importance for the future profession, showed creative abilities in

	understanding and using the educational program material, showed the ability to independently update and replenish knowledge; the level of competence is high (creative);
Fine "4"	It is awarded to a applicant who has demonstrated complete knowledge of the curriculum material, successfully completes the tasks provided for by the program, has mastered the basic literature recommended by the program, has shown a sufficient level of knowledge in the discipline and is capable of their independent updating and renewal in the course of further education and professional activity; the level of competence is sufficient (constructive and variable)
Satisfactorily "3"	It is issued to a applicant who has demonstrated knowledge of the main curriculum material in the amount necessary for further education and subsequent work in the profession, copes with the tasks provided for by the program, made some mistakes in the answers on the exam and when completing the exam tasks, but has the necessary knowledge for overcoming mistakes made under the guidance of a scientific and pedagogical worker; level of competence - average (reproductive)
Unsatisfactorily "2"	It is issued to a applicant who has not demonstrated sufficient knowledge of the main curriculum material, has made fundamental mistakes in the performance of the tasks provided for by the program, cannot use the knowledge in further studies without the help of a teacher, has not managed to master the skills of independent work; the level of competence is low (receptive-productive)

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Distribution of points received by higher education applicants

The grade for the discipline consists of 50.0% of the grade for current academic performance and 50.0% of the grade for differential credit.

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

Conversion table of a traditional assessment into a multi-point scale

Traditional four-point scale	Multipoint 200-point scale
Excellent ("5")	185 - 200
Good ("4")	151 - 184
Satisfactory ("3")	120-150
Unsatisfactory ("2")	Below 120

Multi-point scale (200-point scale) characterizes the actual success of each applicant in mastering the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3"

according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is given to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale

Evaluation on the ECTS scale	Statistical indicator
AND	Top 10% achievers
IN	The next 25% of earners
WITH	The next 30% of earners
D	The next 25% of earners
IS	The next 10% of earners

INDEPENDENT WORK OF APPLICANT OF HIGHER EDUCATION

Evaluation of the applicant's independent work.

The material for applicants' independent work, which is provided in the topic of the practical lesson simultaneously with the classroom work, is evaluated during the current control of the topic in the corresponding classroom lesson.

Assessment of individual applicant work.

The number of points for individual applicant work does not exceed 4 points. Points for individual work are added to the sum of points for the applicant's current educational activity.

Points for individual work can be obtained by students who wrote and reported essays on recommended topics using additional literature and won prizes for participation in the discipline Olympiad among applicant of their university and higher educational institutions of Ukraine.

POLICY OF EDUCATIONAL DISCIPLINE

Deadlines and Rescheduling Policy :

- 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 :

Applicants 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, students 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, cap.

Equipment: notebook, pen.

State of health: applicants suffering from acute infectious diseases, including respiratory diseases, are not allowed to attend classes.

A student who is late for class can attend it, but if the teacher has put "nb" in the journal, he must complete it in the general order.

Use of mobile devices :

Mobile devices may be used by students with the permission of the instructor if they are needed for the assignment.

Behavior in the audience:

The behavior of applicants 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 applicants, scientists and teachers Odessa National Medical University