

Odessa national medical university
Department of Traumatology and Orthopedics

Syllabus
TRAUMATOLOGY AND ORTHOPEDICS

Volume	12 credits / 360 hours
Semester, year of study	I st Semester, 1 year of study
Days, time, place	According to the plan in classes of Department of Traumatology and orthopedics on Paster-street 7v
Teacher (-s)	Sukhin Yurii, Dr. med., professor, Head of Department
Contacts	+380509831515
E-mail	yurii.sukhin@onmedu.edu.ua
Work place	Heads of Department office. Paster-street 7v
Consultations	<i>Offline consultations:</i> Thursday 14.00-16.00; Saturday 9.00-10.30 <i>Online consultations:</i> Thursday 14.00-16.00; Saturday 9.00-10.30 <i>Microsoft Teams or Viber</i>

COMMUNICATION

Communication with graduate students is carried out through face-to-face meetings. In case of changing to online study, communication with graduate students will be carried out using e-mail and programs: Microsoft Teams and Viber.

ANNOTATION OF THE COURSE

Subjects of discipline

Subjects of discipline «Traumatology and orthopedics» are diagnostic methods, treatment and rehabilitation of patients with defeat of a musculoskeletal system.

Prerequisites and Postrequisites of course (Position of discipline in education program)

The study of the academic discipline "Traumatology and Orthopedics" is based on the study by a graduate student/student of such fundamental disciplines as human anatomy, physiology, radiology, general surgery (with operative surgery and topographic anatomy) and is integrated with surgery, pediatric surgery, oncology, neurosurgery, anesthesiology and intensive therapy.

The purpose of course. The purpose of "Traumatology and Orthopedics" consists in mastering of diagnostic methods, treatments and rehabilitations of patients with defeat of a musculoskeletal system.

Tasks of discipline:

- to acquaint applicants with methods of diagnosis, principles of prevention, treatment and rehabilitation of patients with damage to the musculoskeletal system;
- formation of practical skills in the diagnosis and treatment of patients with injuries and diseases of the resistance and movement system;
- formation of skills to provide emergency medical aid to victims with fractures at the pre-hospital stage;
- formation of skills to draw up treatment and rehabilitation schemes for patients.

Expected results

According to the results of studying the discipline, graduate students should:

know:

- basic principles of the organization of the ortopedical-traumatologic help to the population of Ukraine;
- clinic, diagnosis and treatment of certain purulent-inflammatory diseases;
- clinic, diagnosis and treatment of mechanical damage to soft tissues, tendons, bones and joints; specific degenerative-dystrophic diseases of the musculoskeletal system;
- general elements of care for orthopedic and traumatological patients;
- theoretical bases of a modern asepsis and antiseptics;
- classification, clinic, methods of a temporary and final stop of bleeding;
- fundamentals of resuscitation, clinical manifestations of terminal states, their diagnostics, stages and actions when performing resuscitation;
- means and methods of transport immobilization;
- technique and features of inspection of the ortopedical-traumatologic patient;
- structure of the medical record of the inpatient.

be able:

- to diagnose various mechanical damages;
- to provide first aid at various mechanical damages;
- to apply a soft bandage different body parts;
- to impose and remove a plaster splint;
- to choose means for a transport immobilization, to impose Kramer, Diterichs's tire;
- take measures for prevention of developing of decubituses;
- to carry out differential diagnostics at bleeding, to reveal signs of development of hemorrhagic shock;
- ways of a temporary stop of bleeding to choose a way for a final stop of bleeding;
- to choose an adequate way of anesthesia for carrying out this or that intervention;
- to carry out collecting the anamnesis and objective inspection of the ortopedical-traumatologic patient;
- to issue the card of the inpatient for the patient with a mechanical trauma or

orthopedic pathology.

DESCRIPTION OF THE COURSE

Forms and methods of study

The course will be laid out in the form of lectures (10 hours) and seminar classes (170 hours), and also – through organization of independent work (180 hours); in total – 360 hours (12 credits).

The study of the discipline is implemented on the basis of such teaching methods:

- an oral survey on the topic of the class;
- testing;
- solving situational problems;

– defense of the medical history, which consists of a description of clinical examinations, interpretation and evaluation of their results, substantiation of the diagnosis, determination of indications for surgical interventions, analysis and evaluation of the results of instrumental and laboratory tests.

Content of the discipline

Topic 1. Introduction into the specialty. Regeneration of bone tissue

Topic 2. Features of inspection of trauma and orthopedic patients

Topic 3. Classification of bone fractures

Topic 4. Methods of diagnostic of injuries of bones and joints

Topic 5. Basic information about injuries

Topic 6. Treatment of orthopedic and trauma patients in outpatient settings

Topic 7. Resuscitation of patients with traumas of locomotor system

Topic 8. Stable-functional osteosynthesis

Topic 9. Complications at treatment of the locomotor systems injuries

Topic 10. Prosthetics in traumatology and orthopedics

Topic 11. Endoprosthetics in traumatology and orthopedics

Topic 12. Modern methods of physiotherapy in traumatology and orthopedics

Topic 13. Methods of palliative treatment in traumatology and orthopedics, indications and contraindications for surgical treatment in the elderly

Topic 14. Damages of bones and joints of limbs. Modern methods of treatment

Topic 15. Methods of transport immobilization at fractures of limbs

Topic 16. Traumatic illness. Polytrauma

Topic 17. Traumatic dislocations

Topic 18. Injury and damage to blood vessels and nerves

Topic 19. Damages of thorax

Topic 20. Damages of shoulder girdle

Topic 21. Diagnostic and treatment at injuries of upper limbs bones

Topic 22. Diagnostics and tactics of treatment for soft tissue injuries of the shoulder joint

Topic 23. Diagnostic and tactic of treatment at injuries of elbow joint

Topic 24. Diagnostic and treatment at injuries of lower limbs bones

Topic 25. Diagnostic and tactic of treatment at injuries of knee joint

Topic 26. Diagnostic and tactic of treatment at injuries of ankle joint

Topic 27. Diagnostic and treatment at injuries of spine and pelvis

Topic 28. Rehabilitation of patients with effects of the damages of spine and pelvis

Topic 29. Degenerative-dystrophic diseases of spine and joints

Topic 30. Congenital deformations of thorax, spine and limbs

Topic 31. Inflammatory, tumor and tumor-like diseases of the muscle-skeletal system

Topic 32. Bone-articular tuberculosis

Recommended literature:

basic:

1. V.F.Venger, V.V.Serdyuk, Rashed Mochammad. Traumatology and orthopedics: Compilation of methodical developments to the practical studies in traumatology and orthopedics including the materials for self-training of students of medical institutes of higher education. – Odessa: Print, 2004. – 288 p.

2. G.G.Golka, O.A.Burianov, V.G.Klimovitskiy. Traumatology and orthopedics: textbook for students of higher medical educational institutions : transl. from. ukr. lang. – Vinnytsia : Nova Knyha, 2018. – 400 p.

EVALUATION

Evaluation of the success of the study of each topic in the discipline is performed on a traditional 4-point scale.

The current educational activity of students is controlled on a practical training according to specific goals and during individual work of the teacher with students.

Such methods of monitoring student learning outcomes are used: the oral answer about the topic; testing; solution of situational tasks; defense of medical records, which consist from description of carried out clinical inspections, interpretation and evaluation of their results, justification of the diagnosis, definition of indications for surgery, analysis and assessment of results of instrumental and laboratory researches; control of practical skills of first aid and others.

At the end of the course, the current performance is calculated as the average current score, i.e. the arithmetic mean of all grades obtained by the student on a traditional scale, rounded to the nearest hundredth (for example: 4.76).

Evaluation of current control:

Meaning of grade «**excellent**»: a graduate student shows special creative abilities, knows how to independently acquire knowledge, finds and processes the necessary information without the help of a teacher, knows how to use the acquired knowledge and skills to solve problems, is able to produce innovative ways of solving problems, convincingly argues answers, independently reveals his own gifts and inclinations.

Meaning of grade «**good**»: a graduate student is fluent in the studied amount of material, applies it in practice, freely solves exercises and problems in standard situations, independently corrects the mistakes made, the number of which is

insignificant.

Meaning of grade «**satisfactory**»: a graduate student is able to master a significant part of the theoretical material, but mainly in a reproductive form, demonstrates knowledge and understanding of the main provisions, can analyze the educational material with the help of the teacher, correct errors, among which there are a significant number of significant ones.

Meaning of grade «**unsatisfactory**»: a graduate student knows the material at the level of individual fragments, which constitute a small part of the educational material.

Students, who have completed all types of work stipulated by the curriculum, do not have academic debt and, while studying the discipline, have scored an average number of points for the current educational activity, not less than the minimum - **3.00**, are admitted to the final control.

Forms and methods of final control

The form of final control of knowledge is an exam, which is carried out at the last class.

The grade for the discipline consists of the proportion of the results of the assessment of the current educational activity (the arithmetic mean of all the student's current grades) and the exam, which are, respectively, 50% and 50%.

The objectivity of the evaluation of the educational activity of a graduate student should be verified by statistical methods (correlation coefficient between current academic performance and exam results). The obtained average score for the discipline is converted into a score on a 200-point scale by multiplying the arithmetic average by 40.

The average rating for discipline	The discipline rating with a 200-point scale	The discipline rating with a 4-point scale (traditional scale)
4,62–5,0	185–200	5
3,77–4,61	151–184	4
3,0–3,76	120–150	3

Independent work of students

The independent work of a graduate student, which is included in the topics of practical classes, is evaluated during the current monitoring of mastering the topics of the sections in the corresponding classroom session. Mastery of topics that are presented only for independent work is checked during the exam.

COURSE POLICY («game rules»)

Deadline and retake policy

Tasks must be completed on time according to the deadline. A graduate student

receives an unsatisfactory grade for untimely completion of the assignment. If the student of higher education was absent from classes for any reason, then the rework is carried out within the deadlines set by the teacher in accordance with the "Regulations on the Organization of the Educational Process at ONMedU" (link to the regulations on the university's website: <https://onmedu.edu.ua/wp-content/uploads/2020/01/osvitnij-proces.pdf>). Reassembly is carried out in accordance with the approved schedule.

Academic Integrity Policy

The policy of the educational component is based on the principles of academic integrity (link to the regulations on the university website <https://onmedu.edu.ua/wp-content/uploads/2020/07/polozhennja-pro-dobrochesnist.pdf>) and is determined by the system of requirements that the teacher presents to the applicant during studying the educational component:

- ♦ independent performance of educational tasks, tasks of current and final control of study results (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- ♦ references to sources of information in the case of using ideas, developments, statements, information.

Attendance and Tardy Policy

Attendance and work in classroom classes (lectures and seminar classes) is mandatory for obtaining a satisfactory grade. A graduate student is allowed to be late for no more than 10 minutes.

Mobile devices

It is permissible to use mobile devices during the lesson with the teacher's permission.

Behavior in the classroom

While in the audience, the following values should be cultivated: respect for colleagues; tolerance for others; receptivity and impartiality; argumentation of agreement or disagreement with the opinion of other participants in the discussion, as well as one's own opinion; respecting the dignity of the opponent's personality during communication; compliance with the ethics of academic relationships.