

**Odessa National Medical University  
Faculty of Dentistry  
Department of Orthopedic Dentistry**

**Course syllabus**

**"Functional diagnostics in dental diseases with the basics of muscle testing and electromyography"**

<b>Volume</b>	of 90 hours/ 3 credits
<b>Semester, year of study</b>	V-VI semester (third year of study)
<b>Days, time, place</b>	according to the schedule
<b>Teacher (s)</b>	Head Department Assoc., Doctor of Medical Sciences Rozhko P.D., head teacher of the department assistant Cherednichenko A.V., associate professors, candidate of medical sciences: Ryaboshapko A.A., Burdeyny V.S., Balykov V.V., Kushnir N.V., Shakhnovsky I .V., Rozumenko M.V., assistants to the candidate of medical sciences: Rozumenko V.A .; assistants Adamiv S.I., Lysenko V.V.
<b>Contact phone</b>	number at the department phone number is missing
<b>E-mail</b>	ortstom-onmedu@ukr.net
<b>Workplace</b>	Department of Orthopedic Dentistry, Torgovaya street, 15
<b>Consultations</b>	<i>Face-to-face consultations:</i> 14.30-16.00 on Thursday, and 8.30 – 13.00 on Saturday. <i>On-line consultations:</i> conducted by agreement with the teacher, who conducts classes in a group on an individual basis.

**COMMUNICATION**

Communication with students will be carried out in the classroom according to a schedule, as well as using the Microsoft Times, Zoom, E-mail platform, and by phone of the teacher – in the case of distance learning.

**COURSE SUMMARY**

*The subject of the discipline is* to improve students' knowledge of orthopedic dental care, taking into account the functional interaction of the components of the dental system.

**Course details:**

Discipline is based on students ' preliminary study of human anatomy, histology, embryology and cytology, physiology, pathomorphology, pathophysiology, pharmacology, medical physics, microbiology, virology and immunology and is integrated with these disciplines.

*The purpose of teaching the academic discipline* is the professional formation of a future specialist who is able to solve clinical problems using the acquired

knowledge and skills in the discipline, provides for the integration of teaching the discipline with therapeutic, surgical and dentistry of children.

***The main tasks of studying the discipline*** "Functional diagnostics with dental problems with the basics of muscle testing and electromyography" is: to teach students to conduct surveys of patients in a clinical study with the use of dental equipment and tools; to teach students to analyze diagnostic model of patients with different types of pathology dental apparatus; on the basis of clinical thinking to choose recovery methods defects of the teeth and dentition; to teach students to perform practical skills during clinical patients with different defects of the dentoalveolar apparatus; to teach students solve situational problems, with clinical directions.

Competencies and learning outcomes that the discipline contributes to (the relationship with the normative content of training applicants for higher education, formulated in terms of learning outcomes in AKI).

### ***Expected results:***

Integrative end-program learning outcomes that are promoted by the course "Functional diagnostics in dental diseases with the basics of muscle testing and electromyography":

- On the basis of a survey , examination, and instrumental research, be able to evaluate information about the diagnosis, and make a preliminary and final diagnosis.
- Assign and analyze additional (mandatory and optional) survey methods
- Determine the approach, plan, type and principle of treatment of dental diseases by making an informed decision based on existing algorithms and standard schemes.
- Determine the tactics of providing emergency medical care, using recommended algorithms, in any circumstances based on the diagnosis of an emergency condition in a limited time.
- Comply with the requirements of ethics, bioethics and deontology in their professional activities.
- Organize the necessary level of individual safety (own and those who are taken care of) in the event of typical dangerous situations in the individual field of activity
- Perform medical dental manipulations based on a preliminary and / or final clinical diagnosis for different segments of the population and in different settings.
- Perform manipulations of emergency medical care, using standard schemes, under any circumstances based on the diagnosis of an emergency condition in a limited time.

## **COURSE DESCRIPTION**

### ***Forms and methods of training***

The course will be presented in the form of lectures (10 hours.) and seminars (20 hours), organization of independent work of students (60 hours).

When teaching the discipline, the following methods are used: lecturer's story, PowerPoint demonstration and explanation, conversation, briefing, analysis of new information.

During the seminar sessions, the teacher conducts a discussion on pre -defined problems, for which students prepare abstracts *виступів* на based on individually completed tasks (essays, essays, etc.). During the seminar session, the teacher evaluates the quality of students ' individual tasks, their performances, activity in discussion, ability to formulate and defend their position, and so on.

### ***Content of the academic discipline***

1. Gnathology as a scientific and practical direction in orthopedic dentistry. Morphofunctional elements of the dental system, their relationship. Biomechanics of the masticatory apparatus Bite, articulation, occlusion.
2. Methods for determining the central occlusion and the central ratio of the jaws. Functional pathology of teeth and dentitions. Functional state of the dental system in the partial absence of teeth. Hardware functional diagnostics of the dental system in the partial absence of teeth.
3. Functional purpose of occlusal surfaces of teeth and their interaction with antagonist teeth. Occlusal compass. Formation of occlusal contacts in the manufacture of dentures. Causes of functional overload of periodontal tissues. Traumatic occlusion. Direct and reflected traumatic nodes.
4. Morphofunctional changes in periodontal tissues during its functional overload. Features of orthopedic treatment of functional periodontal overload.
5. Functional pathology of the temporomandibular joint. Features of diagnosis of occlusal disorders in deformations of the dentition and occlusion. Associated with pathology of the hard tissues of the teeth, with parafunctions, partial absence of teeth. Pathogenesis of vertical and horizontal deformations of the dentition. Clinic, classification, hardware functional diagnostics of dentition deformation.
6. Clinical-instrumental and instrumental methods of examination of patients with TMJ pathology. Classification, etiology, pathogenesis, clinic, diagnosis and treatment. Apparatus for examination of patients with TMJ pathology (facial arches, articulators, axiographs).

### ***List of recommended literature***

#### **Main**

1. Maeviski S. V. Stomatologicheskaya gnatofiziologiya [Dental gnatophysiology]. Occlusion norms and functions of the dental system /Majewski S. V.-Lviv: GalDent. - 2008. - 144s.
2. Khvatova V. A. Klinicheskaya gnatologiya [Clinical gnathology], Moscow: Meditsina Publ., 2005, 296 p ..
3. Slavichek Rudolph The Masticatory organ: Functions and dysfunctions. And the building house "Azbuka stomatologa", 2008. - 544 p.

## Auxiliary system

1. Makeev V. F., Stupnitsky G. M. Theoretical foundations of orthopedic dentistry (навчальний textbook ібник). –Lviv: LNMU named after Daniel Galitsky, 2010, - 394 p.
2. Occlusion and clinical practice. Klineberg, G. Jager; Translated from English; Under the general. редакторship of M. M. Antonik. MEDpress-inform, 2006 – - 200s.
3. Rozhko N. M., Popovich S. N. and others..Dentistry: пидручник: In 2kn Kn 1 / Kol.: VSV "Meditsina", 2016. p. 458-462.
4. Petrosov Yu. A. Diagnostics and orthopedic treatment of joint diseases. Krasnodar: Tip. Kuban, 2007. - 304s.
5. Nespryadko V. P., Rozhko N. M. Orthopedic dentistry. Ciiin. Kniga Plus, 2003.
7. Information resources
  1. <http://info.odmu.edu.ua/chair/prosthodontics/>
  2. Electronic information resources of the department: <http://goo.gl/enEezy>

## RATINGS

**Current monitoring** is carried out at each practical lesson according to the specific goals of the topics. The assessment of current academic performance is based on the results of:

1. співбесіди на seminar interviews;
2. performing individual work in the classroom.

When mastering each module topic, the student's current academic activity is evaluated on a 4-point traditional scale.

Assessment of independent work:

Independent work of students, which is provided in the topic next to the classroom work, is evaluated during the current control of the topic in the corresponding lesson.

**Final control.** Credit-this form of control for a discipline consists in evaluating the student's assimilation of the discipline's curriculum in full, based on the results of current control. Tests are held at the last lesson in the discipline.

**Підсумок control** in the form of a test оцінюється за is evaluated on a two-point scale:

– the grade "credited" is given to a student who has completed навчальнийthe curriculum of the discipline, which does not have academic debt; dthe level of competence is high (creative);

– the grade "not credited" is given to a student who has not completed навчальнийthe curriculum of the discipline, has an academic debt (the average score is lower than 3.0 and/or missed classes); dthe level of competence is low (receptive – productive).

***Independent work of students.***

Independent extracurricular work of the student is the main means of mastering the educational material. It includes working out the educational material, preparing for lectures and other types of training sessions, performing individual tasks, research work, etc. and is performed during extracurricular time.

## **COURSE POLICY**

### ***Policy on deadlines and retakes:***

Final control (scoring) is carried out in the audience. If there is no or low result, it will be recalculated according to the schedule

### **Academic Integrity Policy:**

Use of prohibited auxiliary materials or technical means (cheat sheets, notes, мікронавушників microphones, phones, smartphones, tablets, etc.) during control events;

### **Attendance and lateness policy:**

Students are required to attend all types of training sessions.

### **Mobile devices:**

Use mobile devices only with the teacher's permission.

### **Audience behavior:**

Active business atmosphere.