

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

**Course syllabus**

**"Functional adaptation of the dentition system in orthopedic treatment"**

<b>Volume</b>	of 90 hours/ 3 credits
<b>Semester, year of study</b>	V 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 hours on Thursday, and 8.30-13.00 hours 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 adaptation of the dentoalveolar system in orthopedic treatment" 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 academic discipline "Functional adaptation of the dentoalveolar system in orthopedic treatment":

- 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. Modern methods of examination of patients with diseases of the dental system. Diagnostic process in orthopedic dentistry and differential diagnosis of diseases of the dental system. Preliminary and final diagnosis. Medical documentation.
2. Dysfunctional condition of the dental system. Neuromuscular dysfunctional syndrome. Etiology, clinic, diagnosis. Parafunctions of the masticatory muscles. Bruxism. Etiology. Pathogenesis. The main symptoms, signs, clinical forms of bruxism. Principles and methods of treatment of bruxism. Methods of prevention of bruxism.
3. Dysfunctions of the disease of the dental system in disorders of the closure of the dentition (occlusion). Occlusion-articulation syndrome. Clinical manifestations. Methods of examination of patients with occlusive disorders of the dentition. X-ray and graphic research methods in the diagnosis of dentition closure disorders. Principles of complex treatment.
4. Features of diagnosis and orthopedic treatment 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.
5. Causes of functional overload of periodontal tissues. Traumatic occlusion. Direct and reflected traumatic nodes. Morphofunctional changes in periodontal tissues during its functional overload.
6. Functional overload of periodontitis in periodontitis. Secondary deformations of the dentition in periodontitis. Diagnosis of the functional state of the periodontium. Odontoparodontogram.
7. Prosthetics in the partial absence of teeth, which is accompanied by traumatic occlusion. Principles of splinting teeth, temporary and permanent splints, splinting dentures. The concept of comprehensive treatment of periodontal disease. The place of orthopedic treatment in the complex treatment of periodontal diseases.
8. The choice of denture design for deformations of the dental system and modeling of dentures in an individually adjusted articulator. Formation of physiological occlusal contacts in the manufacture of dentures, taking into account the biomechanics of the dental system and the state of the TMJ.
9. Deformation of the bite with multiple defects of the hard tissues of the teeth and the partial absence of teeth. Pathogenesis of deep incisal overlap and distal displacement of the mandible. Modern methods of the orthopedic stage in the complex treatment of patients with deformities of the dentition.
- 10 Pathological conditions of masticatory muscles, their relationship with TMJ and

occlusion. Compensatory changes in the masticatory muscles. Treatment of pathological conditions of the masticatory muscles, treatment tactics and types of orthopedic devices and prostheses, as used in the treatment of patients with TMJ pathology.

### *List of recommended literature*

#### **Main**

1. Maevski S. V. Stomatologicheskaya gnatoфизиология [Dental gnathophysiology]. Occlusion norms and functions of the dental system /Majewski S. V.-Lviv: GalDent. - 2008. - 144s.
2. Khvatova V. A. Klinicheskaya gnatologiya [Clinical gnatology], 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 текстbookібник). –Lviv: LNMU named after Daniel Galitsky, 2010, - 394 p.
2. Occlusion and clinical practice. Klineberg, G.Jager; Translated from English; Under the general.редeditorship of M. M. Antonik. MEDpress-inform, 2006 – - 200s.
3. Rozhko N. M., Popovich S. N. and others..Dentistry: пидруchnik: 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. Nespyradko V. P., Rozhko N. M. Orthopedic dentistry. Ciiin. Kniga Plus, 2003.
7. Information resources
1. <http://info.odmu.edu.ua/chair/prostnodontics/>
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** 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:**

С the use of prohibited auxiliary materials or technical means (cheat sheets, notes, мікронавушниківmicrophones , 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.