

MEDICAL UNIVERSITY – PLOVDIV

FACULTY OF DENTAL MEDICINE

ORTHODONTICS DEPARTMENT

ACADEMIC STANDARD FOR THE DISCIPLINE OF ORTHODONTICS

1. TRAINING OBJECTIVE

The training during the Orthodontics course is aimed at providing dental students with basic knowledge and skills. At the end of the course the students must know the basic principles of primary and secondary orthodontic prophylaxis as well as the etiology, pathogenesis and clinical presentation of dentomaxillary deformities and anomalies. They must also be familiar with the basic methods of clinical examination, biometric methods of examination and radiographic methods of examination in orthodontics. Students must know the development of dental arches and occlusion, as well as the growth and development of the facial skeleton. They must be able to make a proper prognosis and treatment plan and they must know the mechanisms of action and the application of the main orthodontic appliances.

2. SYLLABUS

ACADEMIC PLAN

Academic discipline	Examinations	Classes			Classes per years and semesters			
	Semester	Total	Lectures	Seminars	VI	VII	VIII	IX
Orthodontics	IX	225	60	165	1/2	1/2	1/3	1/4

COURSE TIMETABLE

LECTURE TIMETABLE

Year III, Semester VI

Nº	TOPIC	CLASSES	DATE	SIGNATURE
1.	Scope of orthodontics and its interdisciplinary relations to other medical fields. Orthodontic terminology. Introduction to the development of the main orthodontic procedures and historical development of orthodontics in Bulgaria.	1 class		

	Terminology and deviations from the norm.		
2.	Biometric evaluation methods in orthodontics. Specific orthodontic diagnostics. Tooth-size discrepancies. Dental arch discrepancies: tooth-size analysis, arch segment analysis, dento-alveolar and craniofacial discrepancies. Analysis of the steps for diagnostics of deviations in teeth and dental arches. Theoretical explanation of indicators in use.	1 class	
3 .	Biometric evaluation methods. Analysis of the occlusion of primary, mixed and permanent dentition. Introduction to occlusion diagnostics of the three types of dentition. Permanent Dentition Occlusion Analysis.	2 class	
4.	Development and occlusion of dental arches. Dental Arches and Occlusion Development Prognosis of primary, mixed and permanent dentition. Growth and development parameters and patterns. Centres of growth and prognosis for dental arches' parameters.	1 class	
5	Facial Growth. Facial growth areas and patterns. Hypo and hyper-divergent facial types.	2 class	
6.	Diagnostics in orthodontics. Clinical evaluation methods. Diagnostic approaches in clinical assessments – methods and means.	1 class	
7.	Orthodontic diagnosis and photographic analysis. Radiographic examination methods in orthodontics.	1 class	

	Photographic analysis of sagittal, vertical and transversal facial proportions from cross-section /lateral/ and panoramic photographs. Intraoral periapical and occlusal radiograph, panoramic radiograph – necessity and diagnostics.		
8.	Cephalometric radiography. Lateral cephalometric radiography application. Cephalometric analysis- points, lines, planes and angles. Normal values.	1 class	
9.	Methods for assessment of the main functions of the orofacial complex. Functional clinical and paraclinical tests and examinations. Diagnostics of parafunctions.	1 class	
10.	Orthodontic appliances' classification and their action. Basic elements of the lingual plate. Types of orthodontic appliances according to their purpose, source of force, type of action, place of application and mobility.	1 class	
11.	Lingual plate – planning, action and variations. Lingual plate – mechanism, action and making. Indications for application and activation. Lingual plate modifications and their action.	1 class	

12.	Fixed appliances with mechanical action: Angle's appliance and Edgewise appliance system. Basic principles of operation of Angle's appliance and basic principles of operation of the fixed appliances.	1 class	
13.	Treatment stages with fixed appliances. Edgewise system - types of elements, indications for application, activation, retention.	1 class	
14.	Extraoral appliances-stages of treatment and their characteristics.	1 class	
15.	Interceptive appliances. Basic principles of operation, forces, anchorage and biomechanics. Indications for application. Types of interceptive appliances according to their purpose and manner of application.	1 class	

TOTAL: 15 classes

LECTURES SCHEDULE

III year , VI semester

№	TOPIC	CLASSES	DATE
1.	Scope of orthodontics and its interdisciplinary relations to other medical fields. Orthodontic terminology. Introduction to the development of the main orthodontic procedures and historical development of orthodontics in Bulgaria. Materials and instruments used in orthodontics.	1 h.	
2.	Biometric evaluation methods in orthodontics. Specific orthodontic diagnostics. Analysis of discrepancies of individual teeth, dental arch and occlusion.	2 h.	
3.	Biometric evaluation methods. Tooth-size discrepancies. Dental arch discrepancies: tooth-size analysis, arch segment analysis, dento-alveolar and craniofacial discrepancies.	1 h.	
4.	Norm in orthodontics. Classification of dento-alveolar discrepancies and deformations. Norm in primary, mixed and permanent dentition. Angle's Classification.	1 h.	
5.	Development of dental arches and occlusion. Development prognosis of primary, mixed and permanent dentition.	1 h.	
6.	Diagnostics in orthodontics. Clinical evaluation methods. Diagnostic approaches in clinical assessments – methods and means. Methods for assessment of the main functions of the orofacial complex. Diagnosis, differential diagnosis and treatment plan. Documentation in orthodontic practice.	1 h.	
7.	Orthodontic appliances' classification and their action. Basic elements of the lingual plate. Types of orthodontic appliances according to their purpose, source of force, type of action, place of application and mobility.	1 h.	
8.	Lingual plate – planning, action and variations. Lingual plate – mechanism, action and making. Indications for application and activation. Lingual plate modifications and their action.	1 h.	
9.	Photographic analysis of sagittal, vertical and transversal facial proportions on side profile photograph and front face photograph. Intraoral periapical and occlusal radiograph, panoramic radiograph – necessity and diagnostics.	1 h.	
10.	Cephalometric radiography. Lateral cephalometric radiography application. Cephalometric analysis- points, lines, planes and angles. Normal values.	1 h.	
11.	Functional clinical and paraclinical tests and examinations. Diagnostics of parafunctions.	1 h.	

12.	Etiology of malocclusions. Genetic, functional and morphologic etiological factors causing norm deviations in dento-facial region.	1 h.	
13.	Etiology of malocclusions. Genetic, functional and morphologic etiological factors causing norm deviations in dento-facial region.	1 h.	
14.	Prenatal growth and development of cranio-facial region from orthodontics point of view.	1 h.	

TOTAL: 15 h.

РЪКОВОДИТЕЛ КАТЕДРА
ОРТОДОНТИЯ:
/ДОЦ.Д-Р С. КРЪСТЕВА, ДМ/



SEMINARS SCHEDULE

3rd Year, 6th Semester

№	TOPIC	CLASSES	DATE
1.	Brief history and scope of orthodontics – introductory seminar	2 h.	
2.	Impression-taking procedure of the maxilla	2 h.	
3.	Impression-taking procedure of the mandible	2 h.	
4.	Centric occlusion registration. Orientation of the casts in relation to the three main orthodontic planes. Orthodontic cast analysis. Analysis of the single-tooth discrepancies.	2 h.	
5.	Orthodontic cast analysis. Dental arches analysis of permanent dentition	2 h.	
6.	Orthodontic cast analysis. Occlusion analysis of permanent dentition	2 h.	
7.	<u>Seminar:</u> Biometric analysis – single-tooth, dental arch and occlusion.	2 h.	
8.	Retentive elements of the lingual plate –Adams clasp	2 h.	
9.	Retentive elements of the lingual plate – Schwarz clasp	2 h.	
10.	Lingual plate. Vestibular arch	2 h.	
11.	Plastic part /plate/ as a compulsory element of the lingual plate. Other active elements of the lingual plate	2 h.	
12.	Demonstration of making orthodontic appliances from photopolymerizing acrylic	2 h.	
13.	Periapical radiography and panoramic radiography	2 h.	
14.	Lateral cephalometric radiography – general terms	2 h.	
15.	Handing in completed student's work. Receiving the associate professor's signature.	2 h.	

TOTAL: 30 h.

РЪКОВОДИТЕЛ КАТЕДРА
ОРТОДОНТИЯ:
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LECTURES SCHEDULE
4rd Year, 7th Semester

№	TOPIC	CLASSES	DATE
1.	Postnatal growth and development of cranio-facial region from orthodontics point of view. Facial growth areas and patterns. Growth direction for maxilla, mandible and growth rotations. Hypo and hyper-divergent facial types.	1 h.	
2.	Individual tooth deviations – deviations in number, shape, size, structure and position. Diagnosis of rotations, inclinations and tooth position discrepancies. Etiology, diagnostics, clinic and treatment of tooth deviations – microdontia, macrodontia, hypo-and hyperodontia, anodontia, impacted teeth.	2 h.	
3.	Transversal dental arch deviations in the anterior segment: Diastemas and tremas - definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.	1 h.	
	Tranversal dental arch deviations in the posterior segment: Compression - definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.	1 h.	
4.	Tranversal dental arch deviations in the posterior segment: Expansion- definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.	1 h.	
	Saggital discrepancies in the anterior segment of the dental arch: Protrusion - definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.	1 h.	
5.	Saggital discrepancies in the anterior segment of the dental arch: Retrusion - definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.	1 h.	
	Saggital discrepancies in the posterior segment of the dental arch: Mesialised posterior teeth - definition, types, etiology, diagnosis, differential diagnosis, prophylaxis, treatment and retention.		
6.	Angle's class II deformations – definition, etiology, diagnosis, differential diagnosis, prevention, treatment and retention. Class II Division 1 and Class II Division 2.	2 h.	
7.	Angle's class III deformations – definition, etiology, diagnosis, differential diagnosis, prevention, treatment and retention.	2 h.	
8.	Anterios crossbite – definition, etiology, diagnosis, differential diagnosis, prevention, treatment and retention. Posterior crosssbite - definition, etiology, diagnosis, differential diagnosis, prevention, treatment and retention.	2 h.	
9.	Laterognathia – definition, etiology, diagnosis, differential diagnosis, prevention, treatment and retention.	1 h.	

TOTAL: 15 h.

SEMINARS SCHEDULE

4rd Year, 7th Semester

№	TOPIC	CLASSES	DATE
1.	Introductory lesson	2 h.	
2.	Entry level seminar. Clinical and paraclinical methods of examination in orthodontics.	2 h.	
3.	Registration of new patients. Clinical evaluation – anamnesis and status. Impressions for diagnostic models.	2 h.	
4.	Orthodontic cast analysis and paraclinical examinations. Preparation of treatment plan for newly registered patients.	2 h.	
5.	Bending the wire elements of the orthodontic appliance.	2 h.	
6.	Growth and development of the facial skull. Inspection of old patients medical records.	2 h.	
7.	Tooth number, shape, size, position and structure discrepancies. Impacted and persistend deciduous teeth. Clinics, diagnostics, prevention and treatment. Inspection of old patients medical records.	2 h.	
8.	Placement of new appliances and instructing the patients for proper use of the appliances.	2 h.	
9.	Diastemas and tremas.	2 h.	
10.	Compression and expansion.	2 h.	
11.	Protrusion and retrusion. Mesialised teeth, Patients fallow up oppoitment	2 h.	
12.	Seminar – individual teeth and dental arch discrepancies.	2 h.	
13.	Class II deformation – Class II divisions 1 and 2.	2 h.	
14.	Class III deformation.	2 h.	
15.	Patient follow-up. Handing in completed student's work. Receiving the associate professor's signature.	2 h.	

TOTAL: 30 h.

LECTURES SCHEDULE

4rd Year, 8 Semester

№	TOPIC	CLASSES	DATE
1.	Vertical deviations in occlusion- open and deep bite. Definition. Etiology. Diagnosis. Differential diagnosis. Prevention. Treatment. Retention.	2 h.	
2.	Orthodontic appliances' classification. Basic principles of operation of functional appliances. Functional and combined appliances- monobloc, activator, lingual plate with inclined bite plane, Twin block - appliances' construction, indication for usage, action and activation.	2 h.	
3.	Functional appliances normalizing the action of intraoral and extraoral group of muscles – Klammt and Balters appliances, Fränkel functional regulator. Klammt, Balters and Fränkel appliances – construction, types, design, activation and principles of action, indication for use.	2 h.	
4.	Fixed appliances with mechanical action: historical overview of Angle's appliance and Edgewise appliance system. Straight wire system. Basic principles of operation of Angle's appliance and fixed appliances and basic elements of the system. Treatment stages of fixed appliances.	2 h.	
5.	Extraoral appliances. Facemask. Headgear. Chin cup . Their characteristics. Indications for application. Advantages and disadvantages.	1 h.	
6.	Contemporary orthodontic appliances, helping the orthodontic treatment (aligners, Quad Helix, Pendulum, mini implants). Digital orthodontics.	2 h.	
7.	Basic principles of action of biomechanics in orthodontics. Orthodontic forces. Features of force application and type of forces.	1 h.	
8.	Tissue changes under the effect of orthodontic forces and basic biological aspects in tissue changes in orthodontic treatment.	1 h.	
9.	Prognosis and treatment plan in orthodontics.	2 h.	

TOTAL: 18 h.

SEMINARS SCHEDULE

4rd Year, 8 Semester

No	TOPIC	CLASSES	DATE
1.	Introductory seminar.Documentation control on previous active patients	3 h.	
2.	New patients registration.	3 h.	
3.	Clinical diagnostics and treatment plan on new patient. Biometric analysis	3 h.	
4.	Paraclinical diagnostics and treatment plan on the new patient	3 h.	
5.	Crossbite in the anterior and posterior segment. Documentation control of previous and new patient	3 h.	
6.	Laterognathia.	3 h.	
7.	Vertical deviations in occlusion -deep bite. Adjustment of orthodontic appliance and instructions for the patient.	3 h.	
8.	Vertical deviations in occlusion overbite.	3 h.	
9.	Midterm exam ‘ Deviations in the occlusion’	3 h.	
10.	Functional appliances in the ortodontic practice- activator, monobloc, lingual plate with inclined bite plane, twin block. Patients follow- up	3 h.	
11.	Functional appliances in the ortodontic practice- Fränkel, Klammt, Balters. Patients folow-up	3 h.	
12.	Fixed appliances -basic elements and principles of operation. Patients follow-up	3 h.	
13.	Fixed appliances- stages of orthodontic treatment with fixed appliances. Patients follow-up	3 h.	
14.	Midterm exam ‘ Functional appliances’	3 h.	
15.	Handing and accepting the documentation. Receiving the associate professor’s signature.	3 h.	

TOTAL: 45 h.

LECTURES SCHEDULE

V Year, IX Semester

№	TOPIC	CLASSES	DATE
1.	Prevention of dentomaxillary deformities. Types of prevention – aim, activities, executants. Primary prevention of orthodontic malocclusions during pregnancy and first year of development. Prevention during the development of the primary dentition- until the 3 rd year of development. Prevention in primary dentition between the 3 rd and 6 th years of development.	2 h.	
2.	Myogymnastics and myotherapy in orthodontics. Indications for application in cases of different malocclusions and muscles disfunctions. Interceptive appliances. Classification of interceptive appliances. Indications.	2 h.	
3.	Combined orthodontic and prosthetic treatment of malocclusia . Role of the orthodontist. In preparation of the case.	2 h.	
4.	Combined orthodontic and periodontal treatment of malocclusia . Role of the orthodontist. In preparation of the case.	2 h.	
5.	Extraction of teeth. Combined surgical orthodontic treatment. Role of the orthodontist. Indications and contraindications for tooth extraction.	2 h.	
6.	Combined orthodontic and surgical treatment of malocclusion. Surgical approaches of treatment of malocclusions. Orthognatic surgery	2 h.	
7.	Congenital clefts of the lip, alveolar ridge and palate.	2 h.	
8.	Retention and retention periods, retention appliances duration of orthodontic retention. Orthodontic relapse. Factors for relapse. Types of relapse. Relapse after orthodontic treatment.	2 h.	

TOTAL: 16 h.

SEMINARS SCHEDULE

V Year, IX Semester – Theoretical exercises

№	TOPIC	CLASSES	DATE
1.	Terminology and the Norm concepts in Orthodontics.	2 h.	
2.	Etiology of malocclusions. Malocclusions as a result of hereditary factors and teratogenic factors. Endocrine disorders as etiological factors for malocclusion.	2 h.	
3.	Bad oral habits and parafunctions as etiological factors for malocclusion.	2 h.	
4.	Primary prevention of orthodontic malocclusions during pregnancy and first year of development.	2 h.	
5.	Prevention during the development of the primary dentition- until the 3 rd year of development.	2 h.	
6.	Prevention in primary dentition between the 3 rd and 6 th years of development.	2 h.	
7.	Prevention during primary and secondary schoolage.	2 h.	
8.	Types of measures eliminating the abnormal oral habits. Interceptive appliances- passive interceptive appliances.	2 h.	
9.	Types of measures eliminating the abnormal oral habits. Active interceptive appliances.	2 h.	
10.	Prosthetics treatment in childhood.	2 h.	
11.	Space maintainers indications and application.	2 h.	
12.	Types of measures eliminating the abnormal oral habits. Pre-fabricated interceptive appliances.	2 h.	
13.	Myofunctional preventive therapy normalizing tone muscles in maxillofacial region.	2 h.	
14.	The role of the general dental practitioner in prevention of malocclusions. Development of the dental arches and the occlusion.	2 h.	
15.	Arrangement and schedule of the interceptive procedures.	2 h.	

TOTAL: 30 h.

SEMINARS SCHEDULE

V Year, IX Semester – Clinics

No	TOPIC	CLASSES	DATE
1.	Introduction and documentation preparation.	2 h.	
2.	Admission of new patients and documentation preparation.	2 h.	
3.	Clinical evaluation, analysis and treatment plan discussion.	2 h.	
4.	Extraoral appliances – facemask, chin cup and headgear. Admission of patients and documentation preparation.	2 h.	
5.	Orthodontic forces. Admission of patients and documentation preparation.	2 h.	
6.	Tissue changes under the action of orthodontic forces. Admission of patients and documentation preparation.	2 h.	
7.	Biomechanics in Orthodontics. Tissue changes under the action of orthodontic forces. Exam.	2 h.	
8.	Congenital clefts of the lip, alveolar ridge and palate. Admission of patients and documentation preparation.	2 h.	
9.	The role of the general practitioner in collaboration with the orthodontist during the orthodontic treatment. Admission of patients and documentation preparation.	2 h.	
10.	The role of the orthodontist in the complex orthodontic-surgical treatment. Admission of patients and documentation preparation.	2 h.	
11.	The role of the orthodontist in the complex surgical -orthodontic treatment. Admission of patients and documentation preparation.	2 h.	
12.	The role of the orthodontist in the complex orthodontic-periodontal treatment. Admission of patients and documentation preparation.	2 h.	
13.	The role of the orthodontist in the complex orthodontic-prosthetic treatment. Admission of patients and documentation preparation.	2 h.	
14.	Retention and retention periods. Admission of patients and documentation preparation.	2 h.	
15.	Accepting the documentation. Signature from the associate professor.	2 h.	

TOTAL: 30 h.

3. PREREQUISITES

In order to begin clinical training in the discipline, a student must have successfully passed a colloquium exam in Preclinical Orthodontics. After completing the course, students must have the following knowledge and skills:

- they know and conduct primary and secondary orthodontic prophylaxis;

- they know the etiology, pathogenesis and clinical presentation of dentomaxillary deformities;
- they know the basic clinical, biometric and radiographic methods of orthodontic examination;
- they know the development of dental arches and occlusion;
- they know the growth and development of the facial skeleton and are able to make a proper prognosis and treatment plan;
- they are able to correctly apply the main removable orthodontic appliances in the treatment of dentomaxillary deformities and anomalies.

4. ACADEMIC RESOURCES

The department must have the necessary number of teachers in accordance with the adopted norms for the teaching workload of the lecturers at MU, FDM - Plovdiv. The lecturers must have excellent theoretical and practical training and specialty in the discipline of Orthodontics. They must actively participate in the realization of the department plan of scientific research performance, guided by the latest achievements in the field.

5. MATERIAL RESOURCES

The department must provide the necessary number of halls for the Preclinical Orthodontic training, dental units, orthodontic instruments, dental materials, computer configurations and multimedia equipment.

6. LECTURE COURSE

Multimedia presentations of the lecture course are provided to the students electronically.

7. PRACTICAL SEMINARS

A/ The seminars in Preclinical Orthodontics in Year 3 are held in the designated seminar halls. Under the guidance and supervision of the assistant, students make diagnostic and working study models of maxillae and mandibles, study the basic clinical methods of examination in orthodontics, perform biometric analyses of study casts, study the rules and techniques for fabricating a wax pattern of a lingual plate/vestibular arch, Adams clasp, Schwarz clasp, wax modeling of the plate component of the lingual plate/. They study the radiographic methods of examination in orthodontics.

B/ Clinical Seminars

They are held in the clinical halls designated for this purpose. Seminars are held and tests are provided for the seminars. They check the student's preparation and knowledge of the specific practice task. Under the guidance and supervision of the assistant, students perform orthodontic treatment by: taking anamnesis, taking alginate impressions of the maxilla and mandible of the patient, performing a biometric analysis of the patient's dental casts and

radiographs, bending the wire elements of the planned orthodontic removable appliance. After the appliance is fabricated, it is adjusted in the mouth of the patient, then students monitor it monthly and activate the orthodontic appliance.

8. INFORMATION RESOURCES. MAIN LITERARY SOURCES. SITES.

The lecturer has the obligation to develop lectures and seminars in the discipline and provide them to the students in an electronic version.

LITERARY SOURCES

- Athanasiou, A. Orthodontic Cephalometry, 1995, Mosby.
- Begg, P.R. and Kesling, P.C., Begg Orthodontic and Technique, Saunders, Philadelphia, 1971.
- Bennett, J., McLaughlin, R. Orthodontic Treatment Mechanics and the Preadjusted Appliance, 1993. Mosby.
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- Dawson, P.E. Evaluation, Diagnosis, and Treatment of Occlusal Problems, C.V. Mosby, St. Louis, 1974.
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- Okeson, J.P. Management of TMJ disorders and occlusion, St. Louis, 1993.
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- Salzman, J.A. Practice of Orthodontics, Philadelphia, 1966.
- Salzman, J.A. Orthodontics in Daily Practice, Philadelphia, 1974.
- Sperber, GH. Craniofacial Embryology, ed.,Wright, Oxford, 1989.
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- Van der Linden, F. Practical Dentofacial Orthopedics.
- Van der Linden, F. Complex Dentofacial Orthopedics, Orthodontics with Fixed appliances.
- White, T.C., Gardiner, J.H., and Leighton. B.C. Orthodontics for Dental Students, London, 1967.
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- Dekova, L., V. Apostolova, D. Mladenova, Atlas of Orthodontics, Medicine and Physical Education, 1988.
- Koev, T., Dentomaxillary Deformities, Medicine and Physical Education, 1973.
- Mutafchiev, V., Lingual Plate, Sofia, 1997.
- Mutafchiev, V., V. Krumova, V. Yordanov, Orthodontics, 2000.
- Uzhumedkene, I., Examination Methods in Orthodontics, Moscow, 1970.
- Horoshilkina, F., Diagnosis and Functional Treatment of Dentomaxillary Facial Anomalies, Moscow, 1987.
- Krumova, V.,Handbook of Orthodontics for Students, Sofia. Medicine and Physical Education, 2012.
- Dekova, L., V. Mutafchiev, V. Krumova. Atlas of Orthodontic Prevention, Sofia. Medicine and Physical Education, 1993.

- Dekova, L. Practical Guide to Orthodontics, Sofia. Medicine and Physical Education, 1992.
- An Introduction to Orthodontics, Laura Mitchell, Fourth edition, 2013
- Handbook of Orthodontics, Martyn T. Cobourne, Andrew T. DiBiase, 2010
- Orthodontic - Syllabus for Students, Prof. Vera Krumova, 2014.

9. CONTINUOUS ASSESSMENT

Students are intensively and dynamically loaded during the semester. Continuous assessment is conducted through seminars, tests and colloquium examinations. Students are provided with information and explanations about the results of the seminars. The continuous assessment results are taken into account for the semester's certification by the lecturer.

10. STUDENT'S INDIVIDUAL WORK AND ENGAGEMENT

Each student independently performs the tasks assigned to him/her during the seminars. Supervision is performed by the assistant teaching the seminar to the student group.

11. COOPERATION BETWEEN STUDENTS AND THE TEACHING STAFF

Lecturers and students cooperate during seminars. Every lecturer in the department has reception hours for counseling.

12. EXAMINATIONS

The current assessment grades as per the syllabus for the discipline are given for:

- results of colloquium examinations;
- continuous assessment grade of the student during the semester.

13. STUDENT ASSESSMENT STANDARDS

Student assessment standards must be carefully considered and defined so that they are objective and do not depend on the subjective opinion of the lecturer.

- **Excellent (6)**—Awarded for excellent knowledge of the studied subject matter and good knowledge of the information sources. The student has mastered the main and additional knowledge and skills on the subject excellently. The student presents the studied subject matter accurately and fluently. The student is skillful at using his/her knowledge of the subject matter and has the ability to think independently, make judgments and conclusions.
- **Very good (5)** - Awarded for very good knowledge of the studied subject matter and good knowledge of the information sources. The student displays very good main and

additional knowledge and skills on the subject. The student has very good language skills. The student has difficulties in making independent decisions based on sound arguments.

- **Good (4)** - Awarded for good knowledge of the studied subject matter and good understanding of the main and additional knowledge on the subject. The student does not have in-depth insight into the interpretation of the subject matter and cannot make independent decisions based on sound arguments.
- **Average (3)**—Awarded for only basic knowledge of the studied subject matter. The presentation of the studied subject matter is characterized by poor language. The student displays only basic knowledge of solving simple tasks.
- **Poor (2)**—The student does not meet any of the above-stated requirements.

At the beginning of the classes, the students must be made aware of the student assessment standards, the procedures for conducting the continuous assessment and the opportunities for obtaining feedback on their progress during the semester.

14.FINAL ASSESSMENT FORMATION

The final grade is multi-component and includes the grades from

- Continuous assessment
- Practical examination
- Written examination
- Oral examination

If one of the final assessment component grades is Poor (2), then the final grade is Poor (2).

After the examination, the exam materials are kept in the office and the students are given an opportunity to see their graded exam work and the grounds for assessment under the order and procedure set out in clause 13 in this standard. The period in which students are given access to the exam materials and results is within five working days after the exam date.

The present discipline has an Academic Standard to which the students are given access at the beginning of the training.

This requirement is set in accordance with the Law on Higher Education, Art. 56, para. 1, 'Lecturers are required to develop and publicize in an appropriate manner a description of the lecture course taught by them, including the titles and the sequence of the topics of the curriculum, the recommended literature, the way of forming the final assessment grade and the form of examination of the students' knowledge and skills'.

Prepared by Head of Department:

/Associate Prof. Dr. S. Krasteva, DM/



**The Academic Standard for the discipline was approved by Decision of the Orthodontics
Department Board № 5/2023 г.**