DISCIPLINE FILE

1. Data about the programme

1.1.	**"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY**
1.2.	**FACULTY OF DENTISTRY**
1.3.	**DEPARTMENT DENTISTRY III**
1.4.	**DISCIPLINE ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS**
1.5.	**DOMAIN OF STUDY: HEALTH – Sectorally regulated within the European Union**
1.6.	**STUDY CYCLE: I (licence) and II (master)**
1.7.	**STUDY PROGRAME: DENTAL MEDICINE (ENGLISH)**

2. Data about discipline

2.1.	**Name of the discipline in the educational plan: ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS I**				
2.2.	**Discipline code: MD05S12EN**				
2.3.	**Discipline type (FD/SD/CD): SD**				
2.4.	**Discipline regimen (MD/OPD): MD**				
2.5.	**The holder of the course activities:** Prof. dr. Ionescu Ecaterina, Assoc. Prof. Ionescu Ileana, Asssoc. Prof. Teodorescu Elina, Assoc. Prof. Popescu Manuela, Assoc. Prof. Bencze Angelica, Lect. Popoviciu Olivia, Lect. Dragomirescu Anca				
2.6.	**The holder of the practical classes activities:** Assoc. Prof. Ionescu Ileana, Assoc. Prof. Teodorescu Elina, Assoc. Prof. Popescu Manuela, Assoc. Prof. Bencze Angelica, Lect. Popoviciu Olivia, Lect. Dragomirescu Anca, Ass.Prof. Enache Magdalena, Ass.Prof. Eftene Oana, Ass.Prof. Mîndoiu Florina, Ass.Prof. Cioacă Andreea Teodora, Ass.Prof. Zlate Maria-Cristina, Ass.Prof. Marin Ionela Lavinia				
2.7. Year of study	**V**	**2.8. Semester**	**X**	**2.9. Type of evaluation (E/C)**	**E**

3. Total estimated time (hours/semester of didactic activity of self-preparation/study)

I. Academic training (teaching, practical application, assessment)						
3.1. Nr hours/week	**6**	**From which:**	**3.2. lecture**	**3**	**3.3. practical classes**	**3**
3.4. Total hours of educational plan	**84 (14 weeks x 6 hours)**	**From which:**	**3.5. lecture**	**42 (14 weeks x 3 hours)**	**3.6. practical classes**	**42 (14 weeks x 3 hours)**
Final evaluation (nr. of hours) :						**2 h**
II. Self-preparation/study						
Time allocation						**hours**
Study of course materials, textbooks, books, study of the recommended minimal bibliography						35
Additional research in the library, research through the internet						5
Performing specific activities for preparing projects, laboratories, elaborating reviews or other tasks						10

Specific preparation activities for projects, laboratory work, assignments, and reports	10
Tutoring	3
Other activities: student scientific research group; prevention and volunteering activities	3
3.7. Total individual study hours	66
3.8. Total hours per semester (3.4.+ 3.7.)	150
3.9. Number of credits	5

4. Preconditions (where applicable)

4.1. of curriculum	Knowledge of: - Anatomy II (Anatomy and Physiology of the head and neck region/ cephalic extremity); - Dental Morphology (Morphology of Teeth and Dental Arches); - Dental Materials; - Dental Radiology; - Pedodontics.
4.2. of competences	Knowledge of: - the characteristics of the body's somatic development; - the growth and development processes of the normal and pathological dento-maxillary system; -the development of the dentition; - morphological characteristics of temporary and permanent teeth; - principles of dental treatment during the growth period.

5. Conditions (where applicable)

5.1. to conduct the lecture	Amphitheater/ Lecture Hall, seating capacity: at least 120 seats, computer, video projector, internet connection, e-learning platform access
5.2. to conduct the practical classes	Seminar and clinical practice rooms, dental units, specific instruments and materials for orthodontics, internet connection, e-learning platform access

6. Learning outcomes

Knowledge	Skills	Responsibility and autonomy
The student acquires, describes, analyzes, and evaluates specialized knowledge regarding: - the growth and development of the components of the dento-maxillary system; - the etiological and pathogenic factors and mechanisms involved in dento-maxillary anomalies; - the classification of dento-maxillary anomalies;	The student acquires and demonstrates supervised clinical experience in the specialty. The student progressively performs the practical and clinical procedures required to develop the professional competencies specific to the dental profession. These competencies include: - the specific features of the clinical examination in Orthodontics and Dentofacial Orthopedics;	The student integrates and applies the specialized competencies required to recognize the clinical signs of dento-maxillary anomalies. The student applies the knowledge, skills, and professional responsibilities acquired throughout the course to develop the competencies necessary for the assessment of the growth and development of the dento-maxillary system, as

- the diagnosis and therapeutic objectives in the management of dental anomalies.	- the specific extraoral clinical examination; - the intraoral clinical examination, including the identification of orthodontic abnormalities; - complementary diagnostic investigations specific to Orthodontics and Dentofacial Orthopedics; - the positive and differential diagnosis of dental anomalies.	well as for the diagnosis and prevention of dental anomalies.

7. Course objectives (aligned with the learning outcomes)

7.1. General objective	The general objective of the course/discipline is to provide students with the fundamental concepts and specialized knowledge in the field of Orthodontics and Dentofacial Orthopedics, integrated within the broader framework of dental sciences, in order to develop the competencies required for the detection, diagnosis, and prevention of dental and dento-maxillary anomalies.
7.2. Specific objective	To achieve the intended learning outcomes, students are provided with the fundamental concepts related to the formation, growth, and development of the dento-maxillary system, the general and local etiological factors and pathogenetic mechanisms involved in dental and dento-maxillary anomalies, complementary diagnostic investigations specific to the specialty, the classification of dento-maxillary anomalies, and the positive and differential diagnosis of dental anomalies.

8. Contents

8.1. Lecture	**Teaching methods**	**Observations**
1.Orthodontics and Dentofacial Orthopedics: definition and specific characteristics. Phylogenetic evolution and its consequences on the components of the dento-maxillary system	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h
2. Formation, growth, and development of the dento-maxillary system	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	6 h
3. Etiopathogenesis of dento-maxillary anomalies – general and local factors	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	9 h
4. Complementary diagnostic investigations/examinations used in	Interactive presentation of the course content in accordance with the course	3 h

Orthodontics and Dentofacial Orthopedics	syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	
5. Terminology in Orthodontics and Dentofacial Orthopedics; Classification of dento-maxillary anomalies	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h
6. Dental anomalies of tooth numbers: supernumerary teeth	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h
7. Dental anomalies of tooth numbers: congenital absence of teeth	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h
8. Dental eruption anomalies: impacted teeth and submerged (ankylosed) teeth	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h
9. Dental positional anomalies: ectopic eruption and dental transposition; diastema	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	6 h
10. Dento-alveolar discrepancy (crowding and spacing)	Interactive presentation of the course content in accordance with the course syllabus, using multimedia resources, PowerPoint presentations, educational videos, and explanatory instruction.	3 h

Bibliography

- Ionescu E. Anomaliile dentare şi dento-maxilare, "Carol Davila" University Press, 2021
- Boboc Gh. Aparatul dento-maxilar. Formare şi dezvoltare, 2nd edition, Ed. Medicală, 2016
- Lectures taught

Optional Bibliography

- Proffit W.et al., Contemporary Orthodontics, 7th Edition, Ed. Mosby, 2025
- Graber L. et al., Orthodontics, Current Principles and Techniques, 7th Edition, Ed. Elsevier, 2023
- Littlewood S., Mitchell L., An Introduction to Orthodontics, 5th Edition, Ed. Oxford University, 2019

8.2. Practical classes	**Teaching methods**	**Observations**
1. The orthodontic team, the particularities of the Orthodontics and DFO practice, practice-laboratory circuit, storage and preservation of documents, patient records, specific instruments	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h

2. Presentation of the clinical observation chart specific to orthodontics	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
3. Anthropometric points (anterior, posterior, median, paramedian, and lateral) and facial reference planes	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
4. Extraoral clinical examination from frontal view	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
5. Extraoral clinical examination from lateral view	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
6. Functional examination (assessment of masticatory function, swallowing, speech, muscular function)	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
7. Intraoral examination (tooth inventory, dental health and pathological status, tooth position, assessment of interarch relationships, etc.); knowledge assessment	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	6 h
8. Dental impression in orthodontics: characteristics, impressions criteria, required equipments and materials, the techniques of impression The study model in orthodontics: types of models and the importance of the study model	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
9. Dental cast analysis: arch forms and symmetry; developmental indices; three-dimensional development of the dental arches.	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h
10. Static occlusal analysis on study models (sagittal, transverse, and vertical dimensions); knowledge assessment	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	9 h
11. Basic information regarding the insertion, wear, and hygiene of removable orthodontic appliances; practical examination	Interactive exposure of the teaching material according to the analytical program, clinical demonstrations, model study, power-point presentations.	3 h

Bibligraphy

- Ionescu E. Anomaliile dentare şi dento-maxilare, "Carol Davila" University Press, 2021
- Practical Classes Notes

Optional Bibliography

- Proffit W.et al., Contemporary Orthodontics, 7th Edition, Ed. Mosby, 2025
- Ionescu E., Milicescu I. D., Popescu M., Popoviciu O., Milicescu V. Ortodonție și Ortopedie Dento-Facială, ghid clinic și terapeutic, Editura Cerma, 2001

9. Evaluation

Activity type	9.1. Evaluation criteria	9.2. Evaluation methods	9.3. Percentage in the final grade
9.4. Lecture	Theoretical examination	Written examination: writing, grid test - 45 questions from the course and clinical internship	55%
9.4.1 Course Attendance			10%
9.5. Practical classes	Practical Examination with 4 components: -facial clinical examination; -intraoral clinical examination; -static occlusal examination; -examination of the dental arches. Minimum passing grade for the practical examination: 5	Assessment of theoretical knowledge (mid-semester written test) and practical work relevant to the course content, performed on patients and study models.	25%
9.5.1. Attitude and Engagement during Practical classes		The teaching staff will assess the student's professional attitude during practical sessions, including attendance, punctuality, and professional appearance, as well as the student's attitude towards patients and healthcare personnel, initiative and involvement in clinical activities, and the level of theoretical preparation in accordance with the knowledge acquired during the course.	10 %
9.6. Minimum performance standard			
Elementary knowledge of the type of dentition, normal and pathological occlusion, malpositions and dental anomalies			

Date of completion: **Signature of the Head of Discipline**

Date of approval by the Department Council:
06.11.2026

Signature of the Department Director
Professor Ionescu Ecaterina, PhD