



**“CAROL DAVILA” UNIVERSITY  
OF MEDICINE AND PHARMACY BUCHAREST**  
**Faculty of Dentistry**  
**Dental Medicine in English**



## DISCIPLINE GRID

### 1. Programme:

1.1.	<b>CAROL DAVILA UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST</b>
1.2.	<b>FACULTY OF DENTISTRY / 1<sup>st</sup> DEPARTMENT</b>
1.3.	<b>DIVISION: TEETH AND DENTAL ARCHES MORPHOLOGY AND DENTAL MATERIALS</b>
1.4.	<b>STUDY DOMAIN: Health, sectoral regulated within European Union</b>
1.5.	<b>STUDY LEVEL: LICENCE</b>
1.6.	<b>STUDY PROGRAMME: DENTAL MEDICINE IN ENGLISH</b>

### 2. Discipline:

2.1.	<b>DISCIPLINE NAME: Teeth and dental arches morphology</b>						
2.2.	<b>LOCATION: Eforie Clinic, 4-6 Eforie St., Sect 5, Bucharest</b>						
2.3.	Lectures tenure: <b>Bogdan Mihai GĂLBINAȘU (DDS, DMD, PhD) – Associate Professor</b>						
2.4.	Practical classes tenure: <b>Roxana Romanita Ilici (DMD, PhD) - Lecturer, Veronica Bucur (DMD, PhD) - Lecturer, Carmen Georgescu Elena (DMD, PhD) - Assist. Prof., Dragoș Corneliu Smărăndescu (DMD, PhD) - Assist. Prof., Cristian Comănescu (DMD, PhD) - Assist. Prof.</b>						
2.5.	I	2.6.	I	2.7.	Examination	2.8. Type of discipline	CD/SD
Study year		Semester		Evaluation			

### 3. Estimated total time (hours/semester)

No. hours/week	<b>6</b>	out of which	<b>Lectures: 2</b>	<b>Laboratory session: 4</b>
Total hours out of learning schedule	<b>84</b>	out of which	<b>Lectures: 28</b>	<b>Laboratory sessions: 56</b>

Time distribution	hours
<b>Textbook study, lecture support, bibliography and notes</b>	<b>28</b>
<b>Supplementary documentation activity in the library, on online platforms</b>	<b>15</b>
<b>Practical activity support material, homework, portfolio and essays</b>	<b>15</b>
<b>Tutorial activity</b>	<b>2</b>
<b>Examinations</b>	<b>4</b>
<b>Other activities</b>	<b>2</b>
<b>Total hours of individual study</b>	<b>66</b>
<b>Total hours per semester</b>	<b>150</b>
<b>Credits</b>	<b>6</b>

### 4. Preconditions

<b>4.1. Curriculum</b>	Notions of elementary biology. Notions of dental embryology and anatomy of the head.
<b>4.2. Proficiencies</b>	It is not the case.

## 5. Conditions

<b>5.1. for lecture activity</b>	<ul style="list-style-type: none"> <li>- Amphitheatre with projection system</li> <li>- Telephone conversations are not tolerated during the course.</li> <li>- Delay of students in progress will not be tolerated, as it proves to be disruptive to the educational process.</li> </ul>
<b>5.2. for laboratory activity</b>	<ul style="list-style-type: none"> <li>- Laboratories with specific endowments for practical activities</li> <li>- Telephone conversations are not tolerated during laboratories.</li> <li>- Student delays will not be tolerated, as they prove to be disruptive to the educational process.</li> <li>- Mandatory participation is required in laboratories, with a maximum of 10% of unrequited absences being accepted.</li> <li>- Recovery is allowed according to the Regulation on the professional activity of students enrolled at the U.M.F. “Carol Davila”, Chapter VI, Art. 53</li> </ul>

## 6. Accumulated skills

<b>6.1. Proficiencies</b> <i>(knowledge and abilities)</i>	<ul style="list-style-type: none"> <li>• The ability to identify and mark the teeth in the final dentition.</li> <li>• Ability to use specialized terminology appropriately and in context.</li> <li>• Knowledge of each individual morphological entity and their association in a functional morphological complex: the dental arch.</li> <li>• Theoretical knowledge of specific morphological elements.</li> <li>• Rendering them by schematic drawing.</li> <li>• Basic notions on intermaxillary occlusion relations.</li> <li>• Theoretical and practical acquisition of general and special techniques for modelling primary morphology.</li> <li>• Skill and exercise of crafts that involve wax modelling.</li> </ul>
<b>6.2. Transversal skills</b> <i>(role, professional and personal development)</i>	<ul style="list-style-type: none"> <li>• Using assimilated notions in new contexts.</li> <li>• Application of theoretical notions in practical activity.</li> <li>• Establishing interdisciplinary correlations within the studied fields.</li> <li>• Development of synthesis capacity.</li> <li>• Developing the ability to integrate and collaborate.</li> <li>• Developing organizational capacity.</li> </ul>

## 7. Objectives (based on the grid of acquired specific skills)

<b>7.1. General Objective</b>	<ul style="list-style-type: none"> <li>- Learning by students the theoretical and practical notions for restoring the morphology specific to each final dental entity in the dento-maxillary apparatus.</li> <li>- Knowledge by the future dentist of the direct rendering of the lost permanent dental morphology, following the various diseases with loss of hard dental substance.</li> <li>- Students acquire the theoretical notions of permanent morphology so that they can be reproduced by drawing or modelling.</li> <li>- Developing professional communication skills to achieve effective collaboration in the development of a subsequent interdisciplinary treatment plan.</li> </ul>
<b>7.2. Specific Objectives</b>	<ul style="list-style-type: none"> <li>- Recognition and identification of teeth belonging to the permanent human dentition.</li> <li>- Learning the primary notions regarding intermaxillary occlusion relations.</li> <li>- Acquiring the layout knowledge necessary to reproduce by modeling the theoretical notions of acquired morphology.</li> <li>- The expression by drawing of the theoretical notions regarding the morphology of the permanent dental arches.</li> </ul>

## 8. Content

8.1. Lectures	No. hrs/topic	Teaching method	Obs.
1. <b>Tooth embryogenesis.</b> The period of proliferative growth. Calcification period. Tooth eruption. Dental structures. <b>Tooth structure.</b> Enamel. Amelogenesis. Enamel - composition and structure. Dentine. Cementum. Pulp tissue. Periodontium. Alveolar bone.	2	Interactive presentation of the material according to the curriculum, using multimedia tools, PowerPoint presentations, and educational videos.	Oral presentations, Power-Point presentations
2. Terminology. Terminology in dental morphology.	2		Oral presentations, Power-Point presentations
3. <b>Scoring systems.</b>	2		Oral presentations, Power-Point presentations
4. <b>Permanent incisor group characteristics. Dental morphology of the upper incisor group.</b> Permanent central maxillary incisor.	2		Oral presentations, Power-Point presentations
5. <b>Permanent incisor group characteristics. Dental morphology of the upper incisor group.</b> Permanent maxillary lateral incisor.	2		Oral presentations, Power-Point presentations
6. <b>Permanent incisor group characteristics. Dental morphology of the lower incisor group.</b> Permanent mandibular central incisor. Permanent mandibular lateral incisor.	2		Oral presentations, Power-Point presentations
7. <b>Dental morphology of the canine group.</b> Permanent maxillary canine. Permanent mandibular canine.	2		Oral presentations, Power-Point presentations
8. Group dental morphology of permanent teeth. Common features of permanent front teeth. Secondary morphology of permanent front teeth. Interdental relations in the frontal area of the arch.	2		Oral presentations, Power-Point presentations
9. <b>Group dental morphology of permanent teeth.</b> Primary morphology of permanent lateral teeth. Maxillary premolars.	2		Oral presentations, Power-Point presentations
10. <b>Group dental morphology of permanent teeth.</b> Mandibular premolars. Common characteristics of premolars	2		Oral presentations, Power-Point presentations
11. Group dental morphology of permanent teeth. Maxillary molars.	2		Oral presentations, Power-Point presentations
12. <b>Group dental morphology of permanent teeth.</b> Mandibular molars.	2		Oral presentations, Power-Point presentations
13. <b>Group dental morphology of permanent teeth.</b> Common features of molars. Interdental relations in the lateral area of the arch.	2		Oral presentations, Power-Point presentations
14. <b>Dental arches as the sum of the position of the teeth.</b> Positions of the teeth on the arch. Dental arch and growth.	2		Oral presentations, Power-Point presentations

8.2. Laboratory Session	No. hrs./topic	Teaching method	Obs.
1. Presentation of the way of carrying out the practical works, necessary tools, introduction, definitions.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
2. <b>Upper central incisor.</b> Primary morphology modelling - teacher demonstration. UCI drawing. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
3. <b>Upper lateral incisor.</b> Primary morphology modelling - teacher demonstration. ULI drawing. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
4. <b>The upper canine.</b> Primary morphology modelling - teacher demonstration. UC drawing. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
5. <b>The lower canine.</b> Primary morphology modelling - teacher demonstration. LC drawing. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
6. Front group recapitulation. <b>Front group test.</b>	4	Presentation, practical demonstrations, interactive exercises	Craft test
7. <b>Upper premolars.</b> Primary morphology modelling - teacher demonstration. Drawing UP-s. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
8. <b>Lower Premolars.</b> Primary morphology modelling - teacher demonstration. Drawing LP-s. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
9. <b>Upper First Molar.</b> Primary morphology modelling - teacher demonstration. Drawing UFM. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
10. <b>Upper First Molar test.</b>	4	Presentation, practical demonstrations, interactive exercises	Craft test
11. <b>Lower First Molar.</b> Primary morphology modelling - teacher demonstration. Drawing LFM. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
12. <b>Lower first molar test</b>	4	Presentation, practical demonstrations, interactive exercises	Craft test
13. <b>Lower second molar.</b> Primary morphology modelling - teacher demonstration. Drawing LSM. Modelling of primary morphology by students.	4	Presentation, practical demonstrations, interactive exercises	Handicraft exercise
14. <b>Practical exam</b>	4	Practical test	Craft test

### 8.3. Bibliography for lectures and laboratory/practical sessions

1. Teeth and dental arches morphology - Course Handouts, PPT format, current year of study
2. Teeth and dental arches morphology - Course and Practical Works Notes, PDF format, current year of study
3. Hilton Riquieri, "Dental Anatomy and Morphology", QUINTESSENCE PUB, 2019
4. Rashmi GS (Phulari), "Textbook of Dental Anatomy, Physiology & Occlusion", Jaypee Brothers Medical Publishers, 2019
5. Rickne C.Scheid, "Woelfel's Dental Anatomy, Enhanced Edition", Ninth Edition, 2020
6. Stanley J. Nelson, Wheeler's anatomy, physiology and occlusion, Eleventh Edition, Ed. Elsevier 2020
7. G. Richard Scott, Joel D. Irish, "Human Tooth Crown and Root Morphology", Cambridge University Press, 2017

## 9. Corroborating the contents of the discipline with the expectations of epistemic community representatives, professional associations and employers in the fields representative for the program

- The discipline of *Teeth and dental arches morphology, and dental materials* is a fundamental discipline, mandatory for a student to become a dentist
- Permanent and constructive dialogue with representatives of the dentist community - in order to identify the needs and expectations of employers in the field and to adapt the analytical program to the needs of the current practical activity
- Permanent participation of department members in scientific events, forms of continuing medical education and exhibitions of equipment and materials dedicated to the practical activity of dentistry - in order to maintain the theoretical and practical information introduced in the structure of the discipline at a high level.
- Maintaining contacts with other teachers in the field, tenured in other higher education institutions, to coordinate the content taught with other similar programs within other higher education institutions.
- The notions studied are in accordance with the regulations in force and which are compatible with the activities carried out at national and international level in the preclinical dentistry segment.

## 10. Evaluation

Activity type	Evaluation Criteria	Methods of evaluation	% out of final grade
Lecture	<b>Continuity of theoretical training during the semester</b>	Verification tests	<b>20%</b>
	<b>Evaluation of the acquisition of theoretical notions regarding the technology of obtaining fixed dental prostheses</b>	Grid written exam and / or editorial questions	<b>60%</b>
Laboratory Sessions	<b>Continuity of laboratory activity during the semester</b>	Laboratory activity analysis	<b>10%</b>
	<b>Evaluation of the acquisition of practical notions regarding the technology of obtaining fixed dental prostheses</b>	Practical exam	<b>10%</b>

**Minimum performance standards**

Acquiring the main notions related to the morphology of teeth and dental arches:

- Morphology of permanent human teeth, common and differential characteristics of dental groups;
- Morphological characteristics of permanent dental arches;
- Primary elements of static occlusion;
- Mandibulo-maxillary reference positions;
- Structure of dental hard tissues.

at least 50% on each assessment component.

**Date:**  
**September 4th, 2023**

**Chair of Teeth and dental arches morphology and dental materials Division,**  
**Associate Professor Bogdan-Mihai GĂLBINAȘU**

**Date of the approval in**  
**Department Board:**

**Department director,**  
**Prof. Dr. Marina IMRE**