DISCIPLINE SHEET

1. Study programme

1.1.	**"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST**
1.2.	**FACULTY OF DENTISTRY**
1.3.	**DEPARTMENT 1**
1.4.	**DISCIPLINE Anatomy**
1.5.	**STUDY DOMAIN: Health, sectoral regulated within the European Union**
1.6.	**STUDY LEVEL: I (Bachelor's degree) and II (Master's degree)**
1.7.	**STUDY PROGRAMME: DENTAL MEDICINE IN ENGLISH**

2. Discipline

2.1.	**Discipline name according to the study curriculum: ANATOMY I**				
2.2.	**Discipline code: MD01F01EN**				
2.3.	**Discipline type (FD/SD/CD): FD**				
2.4.	**Discipline optionality (COD/ED/FAD): COD**				
2.5.	**Lectures tenure:** Prof. Rusu Mugurel Constantin, Lecturer Radu Constantin Ciuluvică				
2.6.	**Practical classes / seminar tenure:** Lecturer Radu Constantin Ciuluvică, Teaching Assistant Bichir Cătălina				
2.7. Year of study	**I**	**2.8. Semester**	**I**	**2.9. Evaluation (E/C/V)**	**E**

3. Estimated total time (hours/ semester of teaching and training activity /individual study)

I. University training						
3.1. Number of hours per week	**6**	**from which:**	**3.2. lecture**	**2**	**3.3. practical class/ seminar**	**4**
3.4. Total hours in the study curriculum	**84**	**from which:**	**3.5. lecture**	**28**	**3.6. practical class/ seminar**	**56**
II. Preparation/ individual study						
Time distribution						**hours**
Study of lecture materials, textbooks, books, study of the minimum recommended bibliography						36
Additional documentation activity in the library, on online platforms						10
Specific preparation activities for projects, practical classes, preparation of assignments, reports						16
Preparation for presentations or evaluations, preparation for the final examination						4
Tutoring activity						-
Other activities						-
3.7. Total hours of individual study						66
3.8. Total hours per semester (3.4.+3.7.)						150
3.9. Number of credits						5

4. Prerequisites (where appropriate)

4.1. curriculum	basic biology notions (the composition and fundamental functions of the human body)
4.2. proficiencies	

5. Conditions (where appropriate)

5.1. for lecture activity	Mobile phones will be switched off. It is forbidden for students to leave the classroom. Delays for students will not be tolerated. The date of the colloquy/oral exam/preliminary exam/collocutional exam is announced at the beginning of the semester and requests for deferrals will not be accepted, except for justified reasons. Attendance at the course is mandatory, being accepted a maximum of 20% absences from the total number of courses.
5.2. for practical class/ seminar activity	Mobile phones will be switched off. It is forbidden for students to leave the classroom. Delays for students will not be tolerated. Attendance at laboratory session/ tutorial classes/ practical works/ practical courses complies with the University Code of the student's rights and obligations. Recovery of absences is allowed in accordance with the University Code of the student's rights and obligations. The date of the partial exam/midterm will be announced at the beginning of the semester and requests for deferrals will not be accepted, except for justified reasons. The evaluation of the practical notions will be taken in the last week of the semester from the topic of the practical works/ curriculum displayed in advance

6. Learning outcomes*

Knowledge	Skills	Responsibility and autonomy
Upon completion of this course, students will be able to: • Describe the general composition and classification of skull bones, including their developmental origins and structural characteristics • Identify and analyze anatomical features	**Upon completion of this course, students will be able to:** • Navigate CBCT imaging software to systematically examine skull anatomy in multiple standardized views (coronal, sagittal, axial) • Accurately identify cranial fossae boundaries and contents on CBCT images using multiplanar reconstruction • Demonstrate proficiency in identifying maxillary sinus anatomy,	**Upon completion of this course, students will be able to:** • Take responsibility for systematic and thorough examination of skull anatomy on CBCT images, recognizing the impact on patient diagnosis and treatment • Demonstrate professional accountability in identifying anatomical variations that may affect treatment planning and patient safety

visible in norma frontalis, norma verticalis, norma occipitalis, and norma lateralis views of the skull • Explain the boundaries, contents, and clinical significance of the temporal fossa • Describe the anatomy of the endocranium, including the anterior, middle, and posterior cranial fossae and their contained structures • Identify key features of the exocranial base, including the lateral occipital bone, inferior petrous temporal bone surfaces, and TMJ articular surfaces • Explain the anatomy of the roof of the infratemporal fossa and the pterygoid processes • Describe the boundaries, walls, and contents of the nasal fossae and their relationship to dental structures • Analyze the complex anatomy of the infratemporal fossa and its communications with adjacent spaces • Explain the boundaries, contents, and clinical significance of the pterygopalatine fossa • Describe the detailed anatomy of the maxillary bone, including its processes, surfaces, and the	variations, and pathology on CBCT scans • Trace the course of the mandibular canal and its variations using CBCT imaging and 3D reconstruction tools • Correlate external skull landmarks with internal anatomical structures visible on CBCT imaging • Perform systematic analysis of the pterygopalatine and infratemporal fossae using CBCT cross-sectional anatomy • Utilize CBCT measurement tools to assess anatomical dimensions relevant to dental treatment planning • Create and interpret anatomical diagrams correlating traditional anatomical views with CBCT presentations • Apply knowledge of skull anatomy to predict optimal CBCT field of view selection for specific clinical questions • Demonstrate proper use of CBCT software windowing and contrast adjustments to optimize visualization of bone structures	• Show initiative in correlating textbook anatomy with CBCT imaging findings to enhance understanding of three-dimensional relationships • Work independently to research anatomical variations and developmental anomalies encountered in clinical imaging • Collaborate effectively in peer learning activities involving skull anatomy identification and CBCT interpretation • Assume responsibility for proper handling and interpretation of patient imaging data while maintaining confidentiality • Demonstrate autonomous learning skills by seeking additional resources when encountering complex anatomical presentations • Take accountability for developing competency in fundamental skull anatomy that serves as the foundation for advanced clinical studies • Show responsibility for accurate documentation and communication of anatomical findings using appropriate professional terminology • Develop independent critical thinking skills to assess the quality and diagnostic value of CBCT images • Demonstrate initiative in understanding the clinical relevance of anatomical knowledge for future dental practice • Assume responsibility for continuous improvement in spatial visualization and three-dimensional thinking skills essential for dental practice

maxillary sinus configuration • Identify the external anatomical features of the mandible, including processes, surfaces, and muscular attachments • Explain the course, contents, and clinical significance of major canals in the maxilla and mandible		

7. Discipline objectives (correlated with learning outcomes)

7.1. General objective	Knowledge of the elements of descriptive and topographic anatomy of all components of the human body. Knowledge of the regions and spaces of the human body on axial (head, neck, trunk) or appendicular (limbs) segments within the topographic anatomy. Knowledge of the complex morphology of organ and apparatus systems. Morphological exploration on the prepared pieces (corpse) and on the macroscopic anatomical sections. Mastering international anatomical terminology (anatomical nomination).	
7.2. Specific objectives	Knowledge and understanding of anatomical elements. Recognition of all anatomical elements. Knowledge of the relationships between the different anatomical elements. Study of topographic regions and sectional anatomy. It is proposed that at the end of the course students be able: through practical study of the corpse and various anatomical preparations, through the study of imaging anatomy, by understanding and deepening the notions of clinical anatomy and by correlating theoretical data with those of applied anatomy, to achieve a solid anatomical training, necessary during the university period, which is indispensable for the future dentist.	

8. Contents

8.1. Lecture	**Teaching methods**	**Observations**
Skull generalities. Composition of the skull bones.	Interactive presentation of the material according to the analytical program, using multimedia resources, powerpoint presentations, didactic movies, specific software.	
Skull as a whole: Norma frontalis, Norma verticalis, Norma occipitalis.		
Norma lateralis. Temporal fossa.		
Endocalvaria. Endobase – anterior cranial fossa.		
Endobase – middle cranial fossa.		
Endobase – posterior cranial fossa.		
Exobase – lateral part of occipital bone, inferior surface of the petrous part of temporal bone		

Exobase – TMJ surfaces of the temporal bone, roof of infratemporal fossa, pterygoid process.		
The Nasal Fossae		
The Infratemporal Fossa		
The Pterygopalatine Fossa		
Maxillary Bone and Sinus		
External configuration of mandible		
Canals of the maxillary bone and mandible		

Recent bibliography:

The updated course and practical works notes for the respective academic year according to the curriculum (electronic format: * .pdf) uploaded on the online education university platform.
Drake, R., Vogl, A. W., Mitchell, A. W., Gray's Anatomy for Students Flash Cards E-Book, Elsevier Health Sciences (2019).

Anatomy atlases:
Netter FH, Hansen JT, Lambert DR. Netter's clinical anatomy. 1st ed. Carlstadt, N.J.: Icon Learning Systems; 2005.
Netter FH. Atlas of human anatomy. 5th ed. Philadelphia, PA: Saunders/Elsevier; 2010.
Rohen JW, Yokochi C, Lütjen-Drecoll E. Color atlas of anatomy: a photographic study of the human body. Wolters Kluwer Health/Lippincott Williams & Wilkins Baltimore; 2011.
Gray H, Standring S, Anand N, Birch R, Collins P, Crossman A, et al. Gray's anatomy: the anatomical basis of clinical practice. 41 ed. London, UK: Elsevier; 2016.
Snell RS. Clinical Anatomy by Regions. 9th ed. 2011: Wolters Kluwer Health/Lippincott Williams & Wilkins.

8.2. Practical classes/ seminar	**Teaching methods**	**Observations**
Bones of Skull – presentation/drawing/demonstration	Checking the students' theoretical knowledge about the current work, proving by the student the knowledge of the dissection method, evaluating the way each student works. Verification of the student's practical knowledge by identifying macroscopic anatomical elements on cadaveric parts, macroscopic anatomical preparations, sections, plates.	
Presentation/drawing/demonstration – norma frontalis, norma verticalis, norma occipitalis.		
Presentation/drawing/demonstration – normal lateralis, temporal fossa		
Presentation/drawing/demonstration – anterior cranial fossa		
Presentation/drawing/demonstration – middle cranial fossa		
Presentation/drawing/demonstration – posterior cranial fossa		
Presentation/drawing/demonstration – exobase (I)		
Presentation/drawing/demonstration – exobase (II)		
The orbit – osseous anatomy.		
Colloquium - degrevation		
Presentation/drawing/demonstration – infratemporal and pterygopalatine fossae		
Presentation/drawing/demonstration – descriptive anatomy of maxillary bone		

Presentation/drawing/demonstration – descriptive anatomy of mandible		
Practical exam.		

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Gray H, Standring S, Anand N, Birch R, Collins P, Crossman A, et al. Gray's anatomy: the anatomical basis of clinical practice. 41 ed. London, UK: Elsevier; 2016.
Snell RS. Clinical Anatomy by Regions. 9th ed. 2011: Wolters Kluwer Health/Lippincott Williams & Wilkins.

9. Assessment

Activity type	**9.1. Evaluation criteria**	**9.2. Evaluation methods**	**9.3. Percentage of final grade**
9.4. Lecture	**A. Knowledge for mark 5:** - 30 correct grids **B. Additional knowledge for mark 10** 6 correct grids value 1 point	**Grid Exam: 30 single answer grids + 30 grouped answers grids** **Continuous assessment: grid test (30 grids, 15 single-answer type, 15 grouped type, 30 minutes) from the material taught in the first 8 weeks of the semester**	60% The 30 grid test is worth clearing the subject if students score > 5.00. The grid test grade is not reflected in the final semester grade.
9.5. Practical classes/ seminar	**A. Knowledge for mark 5:** - identification of 50% of the assessment criteria **B. Additional knowledge for mark 10** - complete identification of the assessment criteria	**Practical assessment Individual practical exams are carried out during the last week of the semester.** **The practical check is compulsory. The result is reflected in the final grade.**	40%
9.5.1. Individual project (if any)			
Minimum performance standard			
1. Knowledge of anatomical terminology. 2. Recognition of the anatomical elements that make up the human body and the relationships between them.			