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 II**				
2.2.	**Discipline code: MD01F09EN**				
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**	**II**	**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 apparent origin, trajectory, and distribution of cranial nerves III, IV, V, VI, VII, IX, X, XI, and XII, with emphasis on their clinical	**Upon completion of this course, students will be able to:** • Trace cranial nerve pathways on CBCT images and correlate anatomical variations with potential clinical symptoms • Perform detailed analysis of TMJ structures using CBCT multiplanar reconstruction and 3D rendering capabilities	**Upon completion of this course, students will be able to:** • Trace cranial nerve pathways on CBCT images and correlate anatomical variations with potential clinical symptoms • Perform detailed analysis of TMJ structures using CBCT multiplanar reconstruction and 3D rendering capabilities

significance in dentistry • Explain the detailed anatomy of the maxillary and mandibular divisions of the trigeminal nerve, including their branches and areas of innervation • Identify and describe the course and branches of extracranial carotid arteries and the venous drainage patterns of the head and neck • Analyze the complex anatomy of the temporomandibular joint, including articular surfaces, disc, ligaments, joint capsule, vascular supply, and innervation • Describe the origin, insertion, action, and innervation of all masticatory muscles and their role in mandibular movement • Explain the detailed anatomy of the oral cavity, including boundaries, contents, and regional variations • Describe the anatomy, ductal system, and relationships of the parotid gland • Identify the anatomical structures of the pharynx, larynx, cervical trachea, and thyroid gland, emphasizing their relevance to dental practice • Explain the anatomy of the cervicothoracic	• Identify vascular structures and their relationships on contrast-enhanced CBCT studies • Demonstrate advanced CBCT interpretation skills for pre-surgical planning, particularly for third molar extractions and implant placement • Correlate surface anatomical landmarks with deep structures for clinical examination and anesthetic administration • Analyze CBCT images to identify anatomical variations that may affect treatment planning (e.g., mandibular canal variations, maxillary sinus anatomy) • Perform systematic evaluation of airway anatomy using CBCT for sleep apnea assessment • Integrate anatomical knowledge with clinical scenarios to predict potential complications during dental procedures • Utilize advanced CBCT software features for measurement and treatment planning applications • Create detailed anatomical reports based on CBCT findings for interdisciplinary consultation	• Identify vascular structures and their relationships on contrast-enhanced CBCT studies • Demonstrate advanced CBCT interpretation skills for pre-surgical planning, particularly for third molar extractions and implant placement • Correlate surface anatomical landmarks with deep structures for clinical examination and anesthetic administration • Analyze CBCT images to identify anatomical variations that may affect treatment planning (e.g., mandibular canal variations, maxillary sinus anatomy) • Perform systematic evaluation of airway anatomy using CBCT for sleep apnea assessment • Integrate anatomical knowledge with clinical scenarios to predict potential complications during dental procedures • Utilize advanced CBCT software features for measurement and treatment planning applications • Create detailed anatomical reports based on CBCT findings for interdisciplinary consultation **3. RESPONSIBILITY AND AUTONOMY** **Upon completion of this course, students will be able to:** • Independently assess complex anatomical relationships and their implications for treatment planning and patient safety

region, axilla, arm regions, and cubital fossa as they relate to medical emergencies in dental practice • Describe the anatomical passages at the wrist and their clinical significance • Identify key structures of the mediastinum, pleuropulmonary anatomy, and cardiopericardial anatomy relevant to dental treatment considerations		• Demonstrate autonomous decision-making in selecting appropriate imaging protocols based on clinical indications • Take responsibility for accurate identification of critical anatomical structures that could be at risk during surgical procedures • Show initiative in researching anatomical variations and consulting additional resources when encountering complex cases • Collaborate effectively with medical colleagues by providing accurate anatomical assessments and using appropriate professional terminology • Assume responsibility for patient education regarding anatomical considerations in treatment planning • Demonstrate ethical practice in radiation safety and justification for advanced imaging requests • Develop autonomous skills in continuous professional development related to evolving imaging technologies and anatomical understanding • Take accountability for recognizing the limits of their anatomical knowledge and seeking appropriate consultation • Demonstrate leadership in peer learning activities and case-based discussions involving complex anatomical scenarios • Show responsibility for maintaining detailed documentation of anatomical findings that may impact long-term patient care

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**
Cranial nerves (III, IV, V, VI, VII, IX, X, XI, XII). Apparent origin. Trajectory. Distribution.	Interactive presentation of the material according to the analytical program, using multimedia resources, powerpoint presentations, didactic films, specific software.	
Maxillary nerve. Mandibular nerve.		
Extracranial carotid arteries. Veins of head and neck.		
Temporomandibular joint: general description, non-muscular components, vessels, innervation		
Masticatory muscles		
Oral cavity (I)		
Oral cavity (II)		
Anatomy of Parotid Gland		
Pharynx. Larynx. Cervical Trachea. Thyroid Gland.		
The Cervicothoracic Region.		
The Axilla. Regions of the Arm.		
Cubital Fossa. Regions of the Forearm. Anatomical passages at the neck of the hand.		
Mediastinum. Elements of pleuropulmonar anatomy.		
Elements of cardiopericardic anatomy.		

Recent bibliography:

Bibliography for lectures and laboratory/practical sessions

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.

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**
Making cranial nerve schemes (NC: III, IV, V, VI, VII, IX, X, XI, XII).	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, anatomical and imaging plates.	
Schemas of maxillary and mandibular nerves.		
Extracranial carotid system. Cephalocervical venous system. Study on preparations/images/schemes. Realization of specific schemes.		
Temporomandibular joint - Structure. Non-muscular components. Vascularization. Innervation. Realization of specific schemes.		
Muscles of Neck.		
Anatomy of Tongue.		
Vascularization and innervation of the face, oral cavity, teeth. Perioral muscles.		
Descriptive anatomy of the facial nerve.		
Colloquium		
Presentation/demonstration of vascular layers in the cervicothoracic region. Subclavian vessels.		
Dissection of axilla and arm.		
Anatomical schemas – according to the lectures		
Pleural dome. Diagram of the pulmonary pedicles. Diagram of the azygos system. Diagram of the intrathoracic aorta. Diagram of superior vena cava. Diagram of the heart.		
Practical exam.		

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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 barem **B. Additional knowledge for mark 10** - complete identification of the barem	**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.			