DISCIPLINE SHEET

1. Study programme

1.1.	**"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST**
1.2.	**FACULTY OF DENTISTRY**
1.3.	**DEPARTMENT DENTISTRY II**
1.4.	**DISCIPLINE ANATOMICAL PATHOLOGY**
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: ANATOMICAL PATHOLOGY**				
2.2.	**Discipline code: MD02F14EN**				
2.3.	**Discipline type (FD/SD/CD): FD**				
2.4.	**Discipline optionality (COD/ED/FAD): COD**				
2.5.	**Lectures tenure:** Sabina Zurac (MD, PhD) – Professor Alexandra Bastian (MD, PhD)- Associate Professor Luciana Nichita (MD, PhD) – Lecturer Claudiu Socoliuc (MD, PhD) – Lecturer Cristiana Gabriela Popp (MD, PhD) – Lecturer				
2.6.	**Practical classes / seminar tenure:** Luciana Nichita (MD, PhD) – Lecturer Claudiu Socoliuc (MD, PhD) – Lecturer Cristiana Gabriela Popp (MD, PhD) – Lecturer Liana Cătălina Sticlaru (MD, PhD) – Teaching assistant				
2.7. Year of study	**II**	**2.8. Semester**	**III**	**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	**5**	**from which:**	**3.2. lecture**	**2**	**3.3. practical class/ seminar**	**3**
3.4. Total hours in the study curriculum	**70**	**from which:**	**3.5. lecture**	**28**	**3.6. practical class/ seminar**	**42**
II. Preparation/ individual study						
Time distribution						**hours**
Study of lecture materials, textbooks, books, study of the minimum recommended bibliography						35
Additional documentation activity in the library, on online platforms						22

Specific preparation activities for projects, practical classes, preparation of assignments, reports	8
Preparation for presentations or evaluations, preparation for the final examination	7
Tutoring activity	5
Other activities	3
3.7. Total hours of individual study	80
3.8. Total hours per semester (3.4.+3.7.)	**150**
3.9. Number of credits	**5**

4. Prerequisites (where appropriate)

4.1. curriculum	• Knowledge of anatomy • Knowledge of histology • Knowledge of biophysics • Knowledge of biochemistry • Knowledge of physiology
4.2. proficiencies	To know histology techniques

5. Conditions (where appropriate)

5.1. for lecture activity	Amphitheater minimum 70 seats, computer, video projector
5.2. for practical class/ seminar activity	Practical work room with individual microscopes, multi-head microscope, computer Morgue with autopsy room

6. Learning outcomes*

Knowledge	Skills	Responsibility and autonomy
The student/graduate identifies, describes and classifies the mechanisms of production of the studied diseases, risk factors, pathogens (bacteria, viruses, parasites) and the macroscopic and morphopathological aspects of the diseases, with particularities for dentistry/dental medicine.	The student/graduate correctly interprets and applies the fundamental notions regarding the mechanisms of production of the studied diseases, macroscopic and microscopic aspects, and methods for investigating biological functions.	The student/graduate integrates fundamental notions and methods of investigating biological functions, formulates and assumes reasoned conclusions regarding the general mechanisms of occurrence of diseases and macroscopic and microscopic aspects.

7. Discipline objectives (correlated with learning outcomes)

7.1. General objective	- Understanding and mastering the fundamental notions of general pathology (circulatory disorders, dystrophies, nonspecific and specific inflammations, tumors) and oral pathology
7.2. Specific objectives	- Presentation of histological lesions in correlation with pathophysiological mechanisms and clinical manifestations - At the end of the course students should be able to present all the equipment used in pathological anatomy and all the diseases studied in the lectures (definition, classification as a type of predominant

	histopathological lesion, causes, macroscopic appearance, microscopic appearance)

8. Contents

8.1. Lecture	**Teaching methods**	**Observations**
1. CHAPTER I Introductory course: The object of study of pathological anatomy	Interactive presentation of the material according to the analytical program, using multimedia means, power point presentations, didactic films	
2. CHAPTER II Circulatory disorders		
2.1. Active hyperemia; congestion;		
2.2 Thrombosis, embolism		
2.3. Reversible ischemic damage		
2.4. Infarcts		
3. CHAPTER III Dystrophies		
3.1. Hydroprotidic dystrophies		
3.2. Protein dystrophies		
3.3. Lipid dystrophies		
3.4. Carbohydrate dystrophies		
4. CHAPTER IV Inflammation:		
4.1. General information on the inflammatory process.		
4.2. Nonspecific inflammation.		
4.3. Specific inflammations (tuberculosis, congenital and acquired syphilis, acute and chronic rheumatoid arthritis, disease with cytomegalovirus inclusions, actinomycosis)		
5. CHAPTER V Regeneration and repair processes:		
5.1. Granulation tissue, healing of skin wounds		
5.2. The evolution of a fracture focus		
5.3. Nerve regeneration processes		
6. CHAPTER VI Tumors		
6.1. General. Tumor classification (benign epithelial tumors, benign conjunctival tumors, mixed tumors, epithelial malignancies, conjunctival malignancies)		
6.2. Benign tumors.		
6.3. Malignant tumors.		
7. CHAPTER VII Oral histopathology		
7.1. Pathology of the dental pulp. Periodontal pathology.		
7.2. Odontogenic tumors: ameloblastoma; odontogenic keratocyst		
7.3. Precancerous oral-maxillofacial lesions. Tumors of the oral cavity		

Recent bibliography:

1. Kumar V, Abbas A, Aster J. Robbins & Cotran Pathologic Basis of Disease – 10th ed., Elsevier, 2020.
2. Vinay Kumar, Abul K. Abbas, Jon Aster. Robbins Patologie, Bazele Morfologice si Fiziopatologice ale Bolilor. Editura Calisto 2015
3. **WHO classification of tumours series**, 5th ed. Disponibile on line https://tumourclassification.iarc.who.int/home
4. Slootweg P, Dental Pathology – A Practical Introduction, 2the ed, Springer-Verlag, 2013.

Periodical publications:

Virchows Archiv – Official Journal of the European Society of Pathology, Springer

8.2. Practical classes/ seminar	Teaching methods	Observations
CHAPTER I Circulatory disorders	Assistance to macroscopic orientation, the process of histopathological processing and sectioning, performing usual and special staining and IHC, examination of histopathological preparations, participation in autopsies and / or viewing of recorded necropsies	
1. Thrombus.		
2. Chronic pulmonary congestion.		
3. Liver congestion.		
4. Renal congestion.		
5. Reversible ischemic cell damage.		
6. Myocardial infarction.		
7. Pulmonary infarction.		
8. Renal infarction.		
CHAPTER II Dystrophies		
1. Intra- and extracellular hyaline.		
2. Fibrinoid dystrophy (in the Aschoff nodule).		
3. Gastric ulcer		
4. Renal amyloidosis.		
5. Hepatic steatosis.		
6. Niemann-Pick disease.		
7. Gaucher disease.		
8. Intrahepatic cholestasis.		
9. Atheroma plaque		
CHAPTER III Nonspecific inflammation		
1. Fibrinous pericarditis		
2. Acute phlegmonous appendicitis.		
3. Liver abscess.		
4. Acute purulent leptomeningitis.		
5. Acute ulcerative hemorrhagic enterocolitis.		
6. Epidemic mumps.		
7. Granulation tissue.		
8. Infectious endocarditis		
9. Acute pyelonephritis		
10. Frank lobar pneumonia		
11. Bronchopneumonia		
12. Chronic hepatitis		
13. Liver cirrhosis		
CHAPTER IV Specific inflammations		
1. Tuberculous granuloma (pulmonary and lymph node tuberculosis)		
2. Rheumatic heart disease: Aschoff's granuloma (rheumatic myocarditis), rheumatic endocarditis		
3. Diffuse acute poststreptococcal glomerulonephritis		
4. Foreign body granuloma.		
5. Luetic aortitis.		
6. Actinomycosis.		
7. Mycotic pyelonephritis.		
8. Disease with cytomegalovirus inclusions.		

CHAPTER V Benign tumors		
1. Papilloma.		
2. The polyp.		
3. The nevocellular nevus.		
4. Breast fibroadenoma.		
5. Uterine leiomyofibroma.		
6. Pleomorphic adenoma of the parotid gland.		
7. Neurinoma (schwannoma)		
8. Cutaneous capillary hemangioma.		
CHAPTER VI Malignant tumors		
1. Basal cell carcinoma		
2. Squamous cell carcinoma.		
3. Malignant melanoma.		
4. Invasive ductal breast carcinoma.		
5. Colon adenocarcinoma and lymph node metastases.		
6. Gastric carcinoma		
7. Hepatocellular carcinoma		
8. Bronchopulmonary carcinoma		
9. Clear cell renal cell carcinoma		
10. Carcinoma of the uterine cervix		
11. Malignant lymphomas - Hodgkin's lymphoma, nonhodgkin's malignant lymphomas		
12. Fibrosarcoma		
CHAPTER VII Oral histopathology		
1. Branchial cyst.		
2. Giant cell repair granuloma (epulis).		
3. Lichen oral plan.		
4. Pleomorphic adenoma of the parotid gland.		
5. Carcinoma occurring in a pleomorphic adenoma.		
6. Squamous cell carcinoma of the tongue.		
7. Epidemic mumps.		
8. Disease with cytomegalovirus inclusions.		
9. Periapical granuloma.		
10. Ameloblastoma		

Recent bibliography:

1. Kumar V, Abbas A, Aster J. Robbins & Cotran Pathologic Basis of Disease – 10th ed., Elsevier, 2020.
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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:** - to define correctly all the diseases studied in the course - to differentiate reversible from irreversible cellular lesions - to differentiate specific from non-specific inflammations - to differentiate tumor from non-tumor lesions - to differentiate benign from malignant tumors in terms of biological evolution - to know from oral pathology the main periapical lesions - not to make major mistakes **B. Additional knowledge for mark 10** - to present correctly all the diseases studied during the course (definition, classification as a type of predominant histopathological lesion, causes, macroscopic aspect, microscopic aspect) - to have in-depth knowledge about the histopathology of the oral diseases	Theoretical exam – written examination: 10 subjects from all chapters of the analytical program Or under special conditions multiple choice test 45 questions Optional partial exam – written examination – 2 topics from circulatory disorders and 2 topics from dystrophies Or in special conditions 20-question grid test The partial exam allows for subject relief from the final theoretical exam with a grade above 8	**70%**
9.5. Practical classes/ seminar	At each seminar, before starting a new practical work, discussions to verify the acquisition of the notions presented in the previous laboratory sessions **A. Knowledge for mark 5:** - correct definition of the diseases - correct identification of the microscopic images of the main characteristic of the disease - not to make major mistakes **B. Additional knowledge for mark 10:** Complete and correct presentation of the diseases (definition, classification as a type of predominant histopathological lesion, causes, macroscopic appearance, microscopic	Periodic check Practical examination: multiple choice test 10 questions with images of the diseases studied in laboratory sessions	10% 20%

	appearance) and identification of the microscopic images of the lesions characteristic for each disease		
9.5.1. Individual project (if any)	.-		
Minimum performance standard - Elementary knowledge of the studied diseases			