

FIȘA DISCIPLINEI

1. Date despre program

1.1 Instituția de învățământ superior	UNIVERSITATEA DE MEDICINA SI FARMACIE "VICTOR BABEȘ" TIMIȘOARA
1.2 Facultatea	FACULTATEA DE MEDICINĂ DENTARĂ
1.3 Departamentul	II - Morfologie microscopică
1.4 Domeniul de studii de ¹⁾	Health
1.5 Ciclul de studii ²⁾	Licență
1.6 Programul de studii/ Calificarea	Dental Medicine

2. Date despre disciplină

2.1. Denumirea disciplinei	ANATOMIE PATOLOGICĂ / MORFOPATOLOGIE							
2.2 Titularul activităților de curs	Ș.I. Dr. Dorela-Codruța Lăzureanu							
2.3 Titularul activităților de laborator	Ș.I. Dr. Dorela-Codruța Lăzureanu Asist. Dr. Adrian Ovidiu Văduva Asist. Drd. Ioana Maria Mihai							
2.4 Anul de studiu	II	2.5 Semestrul	4	2.6 Tipul de evaluare	Examen	2.7 Regimul disciplinei	Conținut ³⁾	DF
							Obligativitate ⁴⁾	DI

3. Timpul total estimat (ore pe semestru al activităților didactice)

3.1 Număr de ore pe săptămână	4	3.2 din care: curs	2	3.3 laborator	2
3.4 Total ore din planul de învățământ	56	3.5 din care: curs	28	3.6 laborator	28
Distribuția fondului de timp					ore
Studiul după manual, suport de curs, bibliografie și notițe					40
Documentare suplimentară în bibliotecă, pe platformele electronice de specialitate și pe teren					20
Pregătire seminarii/ laboratoare/ proiecte, teme, referate, portofolii și eseuri					24
Tutoriat					
Examinări (1 seminar, 1 examen practic, 1 examen final)					6
Alte activități					4
3.7 Total ore studiu individual	94				
3.8 Total ore pe semestru	150				
3.9 Numărul de credite⁵⁾	5				

4. Precondiții (acolo unde este cazul)

4.1 de curriculum	Anatomy. Molecular Cell Biology. Histology. Students with credits in advance for Anatomical pathology ought to have Anatomy and Histology exams taken.
4.2 de competențe	The ability to operate the microscope, to recognize tissues and organs, microscopically as well as macroscopically. To know the main histological stains for human tissues. The ability to use electronic devices (mostly PC) mainly to visualize histopathological images.

5. Condiții (acolo unde este cazul)

5.1 de desfășurare a cursului	<ul style="list-style-type: none"> Attendance to courses is mandatory, a student can only have a maximum of 30% of absences from the total of attendances. For good reasons, students have the possibility to recuperate/pre-recuperate an absence at a course - only in the same week (when that is feasible). Students are obligated to obey to the rules and internal laws of UMFT. Mobile phones will be shut off during the courses, telephone conversations are not allowed during the course, and the exiting of the lecture hall for telephone calls is forbidden. A course cannot be recorded or filmed without the express accordance of the teaching staff member responsible for the course. Lateness to the course is not allowed, for the wellbeing of the course dynamics. The date for the course seminar is established at the beginning of the semester jointly with the students, and the date published in the noticeboard of the discipline. Postponements will only be accepted on good grounds.
5.2 de desfășurare a laboratorului	<ul style="list-style-type: none"> Attendance to the practical courses is mandatory; the student is allowed in the practical exam only if he/she has a minimum of 85% of the total attendances.

	<ul style="list-style-type: none"> • For good reasons, students have the possibility to recover / pre-recover an absence at laboratory in the same week (when that is feasible). • It is allowed to recover within a 15% limit of the overall number of laboratory absences with payment regime in the last 2 weeks of teaching process. • It is mandatory to recuperate in the last 2 weeks of the semester all the absences made during the microscopy practical hours. • Mobile phones will be shut off during the labs, telephone conversations are not allowed during the lab, and the exiting of the classroom for telephone calls is forbidden. • A practical course cannot be recorded or filmed without the express accordance of the teaching staff member responsible for the practical course / lab. • Lateness to the lab is not allowed, for the wellbeing of the lab dynamics. • The practical exam is scheduled to take place in the ordinary session, from practical courses topics / laboratories / internships, all of which will be published beforehand. • Students will wear lab coats, they will have a notebook just for the practical courses and colored pencils.
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6. Competențe specifice acumulate

Competențe Profesionale	<ol style="list-style-type: none"> 1. Knowledge of all the aspects of diseases, beginning from etiology and the mechanisms of disease (pathogenesis), continuing with the ability to describe the structural changes encountered both microscopically and macroscopically. 2. To develop the capacity to recognize and describe the main tissue structural changes both microscopically and macroscopically, and to integrate these changes into a diagnostic entity. 3. To understand and to interpret a microscopic and a macroscopic diagnosis. 4. To recognize and learn the used of some morphological parameters involved in prognosis evaluation and therapeutic strategy
Competențe transversale	<ol style="list-style-type: none"> 1. Anatomical and clinical correlations with development of medical thinking, starting from the alteration of the structure pertaining to the impact this will have on the function of organs and systems, and the subsequent clinical manifestations. 2. Involvement in continuous professional improvement by training of critical, and rational thinking highlighted by active participation in the course and laboratory/seminar/project. 3. Involvement in scientific research by participating in elaborations of reports, studies, specialty articles and initiation in the study of the subjects for thesis on the topics provided by the discipline (for the students who express this option) 4. Efficient utilization of information sources, communication and assisted professional improvements, resources (internet portals, professional software applications, databases, online courses etc.) in English.

7. Obiectivele disciplinei (reieșind din competențele specifice acumulate)

7.1 Obiectivul general al disciplinei	To provide knowledge, skills and experience understanding the morphological substrate of diseases, the terminology used in morphopathology and to know the way in which a pathological processes can impact the structure and function of systems and/or organs of the human body, all of them having subsequent clinical manifestations.
7.2 Obiectivele specifice	<p>Knowledge and understanding of theoretical and practical aspects of pathology with direct applications in the medical field.</p> <p>Understanding of the medical terminology used by the pathologist to describe structural alterations both cellular and tissue, and the ability to interpret a histopathological report.</p> <p>Development of medical reasoning/thinking pertaining to the positive diagnosis and differential diagnosis of diseases.</p> <p>The development of skills to operate the microscope and to understand the tissue lesion substrate.</p>

8. Conținuturi

8.1 Curs	Metode de predare	Număr de ore	Observații
1. The importance of pathology in medical practice. Hemodynamic disorders: Hyperemia. Hemorrhage. Thrombosis. Embolism. Ischemia. Infarction.	PowerPoint presentations with representative images for the multiple macroscopic and microscopic structural lesion entities. The material used is permanently revised, the most recent information especially oral cavity onco-pathology, being introduced.	2	
2. Cell damage: Reversible cell injury. Adaptation cell changes: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia. Alteration by abnormal substance storage: lipid metabolism		2	

disorders; hyaline change; mucinous and mucoid change; fibrinoid change.	These presentations comprise interactive communication, questioning and debates.		
3. Cell damage: amyloid change; alteration through urate crystals deposition; alteration through calcium deposition variation. Pigments: melanin, hemoglobin pigments. Irreversible cell damage (necrosis). Acute inflammation: Main reactions in acute inflammation. Types of acute inflammation.		2	
4. Chronic inflammation: Morphologic features of chronic inflammation. Classification of chronic inflammations. Tuberculosis; syphilitic inflammation; actinomycosis; parasitic inflammations. Characteristics of viral inflammation. Wound healing by regeneration, repair and fibrosis.		2	
5. Tumors I: Bio-morphological general characteristics of benign tumors. Bio-morphological general characteristics of malignant tumors. Tumor invasion and metastasis. Clinical and biological effects of tumors. Morphological diagnosis of tumors. Prognosis criteria, grading and staging of cancer. Precancerous lesions. Intraepithelial carcinoma.		2	
6. Tumors II: Main types of benign and malignant tumors: epithelial tissue tumors; connective tissue tumors; adipose tissue tumors; cartilaginous tissue tumors; bone tumors; muscle tumors; tumors of the blood vessels; tumors of the lymphatic vessels; tumors of the melanin pigment tissue; lympho-reticular tissue tumors; tumors of the hematopoietic bone marrow; fetal trophoblast tumors; embryonic tumors (dysembryoplastic). Etiopathogenesis of cancer.		2	
7. Dental-oral-maxillary morphopathology: Diseases of the teeth I: Dental anomalies. Enamel lysis. Dental trauma. Pathological dental abrasion. Pigmentation of the teeth.		2	
8. Dental-oral-maxillary morphopathology: Diseases of the teeth II: Dental caries. Acute and chronic pulpitis. Pulp necrosis and gangrene. Root cement reactions.		2	
9. Dental-oral-maxillary morphopathology: Diseases of the teeth III: Acute and chronic apical periodontitis. Degenerative periodontitis. Parodontomas. Root resorption. Alveolar wound healing after tooth extraction.		2	
10. Diseases of oral mucosa, lips and tongue: Stomatitis. Specific lesions of the lips. Specific lesions of the tongue.		2	
11. Tumors and pseudotumors of the oral cavity: Pseudotumoral lesions of the oral cavity. Lesions with malignant potential of the oral mucosa. Tumors (epithelial, mesenchymal and melanocytic – benign and malignant; secondary tumors) of the oral cavity.		2	

12. Diseases of the salivary glands: Sialolithiasis. Sialadenitis - acute and chronic, specific and non-specific. Lymphoepithelial lesions. Tumors of salivary glands (epithelial and mesenchymal-benign and malignant; lymphomas; secondary tumors).		2	
13. Diseases of the jaws I: Congenital labial-maxillary-palatal clefts. Bone dystrophy of the jaws.		2	
14. Diseases of the jaws II: Cysts and tumors of the jaws: Cysts of the jaws. Odontogenous tumors (epithelial, mesenchymal and mixed). Benign and malignant non-odontogenous tumors. Metastatic tumors.		2	

Bibliografie obligatorie:

1. **DENTAL PATHOLOGY A Practical Introduction** – Slootweg P, Springer-Verlag, 2nd Edition, 2013.
2. **GENERAL PATHOLOGY – Textbook and Slide Sessions Guide** - Codruța Lăzureanu, Remus Cornea, Editura Eurobit, Timișoara, 2011
3. **PATHOLOGY – Textbook and Slide Sessions Guide** - Codruța Lăzureanu, Remus Cornea, Elena Lazăr, Editura Eurobit, Timișoara, 2010

Bibliografie facultativă:

1. **HEAD and NECK PATHOLOGY** – Thompson L, Elsevier Saunders, 2nd Edition, 2013.
2. **ORAL and MAXILLOFACIAL PATHOLOGY** – Neville B, Damm D, Allen C, Bouquot J, Saunders Elsevier, 3rd Edition, 2009.
3. **Cawson's Essentials of ORAL PATHOLOGY and ORAL MEDICINE** – Cawson R, Odell E, Churchill Livingstone Elsevier, 8th Edition, 2008.

8.2 Laborator	Metode de predare-învățare	Număr de ore	Observații
1. Introduction in practical morphopathology. Signs of biological death. Technique of necropsy. Human tissue sampling and fixation for the histopathological (biopsy) exam.	Visit to Pathology Department with explanation of standardized circuits and procedures in a pathological anatomy laboratory. Necropsy technique presentation taped and live by attending to one autopsy (if possible). Demonstration of the macroscopic alterations on the specimens (organs and apparatus) from the discipline museum.	2	
2. Hemodynamic disorders and cell damages: Chronic congestion of the lung. Thrombosis. Kidney infarction. Steatosis of the liver (HE, Schalch stains).	Power-point presentation of the pathological processes on the microscopic level from lab curriculum.	2	
3. Acute and chronic inflammation: Vascular-exudative reactions in acute inflammation. Abscess (renal). Phlegmon (acute appendicitis). Foreign body granuloma. Proliferative tuberculosis (tuberculous follicle).	Specific training to recognize and describe the main tissue structural changes using light microscope and to integrate these changes into a diagnostic entity.	2	
4. Benign tumors: Papilloma. Hemangioma. Leiomyoma. Chondroma. Osteoclastoma.		2	
5. Malignant tumors: Cancer cell. Basal cell carcinoma. Keratinized epidermoid carcinoma. Adenocarcinoma. Sarcoma.		2	
6. Macroscopy demonstrations in the morgue or the department museum.		2	
7. Written test / seminar from general pathology curriculum. Review of slides.		2	

8. Visit to Pathology Department (lab & morgue)		2	
9. Pathology of the teeth I: Dental caries. Pulp hemorrhage and hyperemia. Hyaline change of the pulp. Dental pulp calcifications.		2	
10. Pathology of the teeth II: Acute purulent pulpitis. Chronic ulcerative pulpitis. Chronic granulomatous (polypous) pulpitis. Dental granuloma.		2	
11. Pathology of the oral cavity: Giant cell epulis. Irritation fibroma. Adamantinoma. Odontoma. Oral cavity carcinoma.		2	
12. Pathology of the salivary glands: Chronic sialadenitis. Pleomorphic adenoma of the salivary gland. Cystadenolymphoma (Warthin's tumor). Muco-epidermoid carcinoma. Adenoid cystic carcinoma.		2	
13. Recapitulation general pathology slides + museum / Recovery		2	
14. Recapitulation dentistry pathology slides / Recovery		2	
Bibliografie obligatorie: 1. DENTAL PATHOLOGY A Practical Introduction – Slootweg P, Springer-Verlag, 2nd Edition, 2013. 2. GENERAL PATHOLOGY – Textbook and Slide Sessions Guide - Codruța Lăzureanu, Remus Cornea, Editura Eurobit, Timișoara, 2011 3. PATHOLOGY – Textbook and Slide Sessions Guide - Codruța Lăzureanu, Remus Cornea, Elena Lazăr, Editura Eurobit, Timișoara, 2010 4. *** - Protocols for slide sections printed & electronic support edited by Discipline teaching staff. Bibliografie facultativă: 1. HEAD and NECK PATHOLOGY – Thompson L, Elsevier Saunders, 2nd Edition, 2013. 2. ORAL and MAXILLOFACIAL PATHOLOGY – Neville B, Damm D, Allen C, Bouquot J, Saunders Elsevier, 3rd Edition, 2009. 3. Cawson's Essentials of ORAL PATHOLOGY and ORAL MEDICINE – Cawson R, Odell E, Churchill Livingstone Elsevier, 8th Edition, 2008.			

9. Coroborarea conținuturilor disciplinei cu așteptările reprezentanților comunităților epistemice, asociațiilor profesionale și angajatori reprezentativi din domeniul aferent programului

<ul style="list-style-type: none"> • The subject's curriculum is thus constructed so that it facilitates the formation of professional competencies (specific to the profession), and transversal competencies; • The content of courses/practical courses delivers concepts and basic skills required for postgraduate specializations (residency); • The content of the subject is corroborated with demands from the market profile - highly qualified medical professional; • The content of the practical courses was carefully selected after studying the analytical programs from other profile universities from Romania and abroad.

10. Evaluare

Tip activitate	10.1 Criterii de evaluare	10.2 Metode de evaluare	10.3 Pondere din nota finală
10.4 Curs	<i>Cunoștințe pentru nota 5:</i> definition of the basic pathologic entities and their summary macro- and microscopic description. <i>Cunoștințe pentru nota 10:</i> macro- and microscopic aspects of various lesions,	Written exam – single- or multiple-answer questions, on a limited period of time (60 minutes) from course themes (general and oral pathology).	60%

	their etiopathogenesis, present classifications, evolution, possible complications, prognosis, anatomo-clinical correlations. Detailed knowledge about lesions from the oral pathology.		
10.5 Laborator	<i>Cunoștințe pentru nota 5:</i> organ and lesion diagnosis on 1/2 of the histopathological aspects. <i>Cunoștințe pentru nota 10:</i> organ and lesion diagnosis on all histopathological and gross aspects of lesions.	Practical exam consisting in microscopic diagnosis of organs and lesions (from the practical laboratory curriculum of pathology – general and oral pathology) + a pathological entity from the department museum, from the practical laboratory curricula of general pathology.	30%
10.6 Seminar	<i>Cunoștințe pentru nota 5:</i> definition of main pathological entities. <i>Cunoștințe pentru nota 10:</i> macro- and microscopic aspects of morphological lesions.	Written evaluation with single- or multiple-answer questions, on a limited period of time (60 minutes) from general pathology	10%
10.7 Standard minim de performanță			
<ul style="list-style-type: none"> - knowledge of the terminology used in the subject field - knowledge of basic pathological / structural alterations and to understand the mechanisms of production - recognition of basic pathological / structural alterations - recognition of the most common lesions encountered in medical practice and the subsequent clinical correlations - training in skills necessary for laboratory activities - knowledge of modern techniques used in research and the study of cellular and tissue components and mechanisms 			

Data completării	Semnătura titularului de curs	Semnătura titularului de laborator
02.11.2018	Ș.I. Dr. Dorela – Codruța Lăzureanu	Ș.I. Dr. Dorela – Codruța Lăzureanu Asist. Dr. Adrian Ovidiu Văduva Asist Drd. Ioana Maria Mihai
Semnătura șefului de disciplină		
Prof.Dr. Alis Dema		
Data avizării în departament	Semnătura directorului de departament Prof. Dr. DOINA VERDEȘ	