

## CHART OF DISCIPLINE/ SYLLABUS

### 1. Study Program Data

1.1 High Education Institution	UNIVERSITY OF MEDICINE AND PHARMACY „Victor Babes” TIMISOARA
1.2 Faculty	MEDICINE
1.3 Department	II – MICROSCOPIC MORPHOLOGY
1.4 Study Domain <sup>1)</sup>	HEALTH
1.5 Cycle Studies <sup>2)</sup>	LICENCE
1.6 Study programme/ Qualification	MEDICINE

### 2. Course Data

2.1.Course/Department	CLINICAL PATHOLOGY (CLINICAL ANATOMICAL PATHOLOGY)						
2.2 Course tutor	Lecturer Vaduva Adrian, MD, PhD						
2.3 Practical activity tutors	Lecturer Vaduva Adrian, MD, PhD						
2.4. Year of study	V	2.5 Semester	9	2.6 Assessment	Coloquim	2.7 Course rank	Content <sup>3)</sup>
							Mandatory /Compulsory <sup>3)</sup>
							DFac
							DFac

### 3. Duration/Estimated Time (number of hours/ semester of teaching activity)

3.1 Number of hours/ week	2	3.2 lecture/course	1	3.3 laboratory	1
3.4 Total hours of curriculum	28	3.5 lecture/course	14	3.6 laboratory	14
Time distribution for course activities					
Study support- manuals, lectures, references and notes					20
Additional documentation – library, dedicated platforms from domain					12
Documentation for seminars/ practical activity/ projects, themes, portofolios and essays					10
Examination					2
3.7 Total number of hours for individual study	44				
3.8 Total number of hours per semester	72				
3.9 Number of credits <sup>5)</sup>	1				

### 4. Preconditions (if applicable and requested)

4.1 Courses- studied curriculum / rules for attending the course	Morfopathology, Oncology, Internal Medicine
4.2 Practical activities/seminars/projects studied curriculum, basic skills/ rules for attending the course	The ability to use electronic devices (mostly PC) to visualize histopathological images.

### 5. Condition (if applicable and requested)

5.1 Courses	<ul style="list-style-type: none"> <li>Attendance to courses is mandatory, a student can only have a maximum of 50% of absences from the total of attendances.</li> <li>Students must obey the rules and internal laws of UMFVBT.</li> <li>A course cannot be recorded or filmed without the express accordance of the teaching staff member responsible for the course.</li> <li>Lateness to the course is not allowed, for the wellbeing of the course dynamics.</li> </ul>
5.2 Laboratory/practical activity/ project	<ul style="list-style-type: none"> <li>A practical course cannot be recorded or filmed without the express accordance of the teaching staff member responsible for the practical course / lab.</li> <li>Lateness to the lab is not allowed, for the wellbeing of the lab dynamics.</li> <li>The coloquim will take place in the pre-session (PowerPoint presentation of a special/interesting clinical case).</li> </ul>

### 6. Key competencies and basic skills

Professional Competencies	<ol style="list-style-type: none"> <li>Knowledge of some of 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.</li> <li>To accumulate knowledge referring to morphological parameters involved in the evaluation of the prognosis and their therapeutical implications</li> <li>To develop the capacity to recognize and describe the main tissue structural changes both microscopically and macroscopically, to integrate these changes into a diagnostic entity.</li> <li>The ability to understand and interpret a microscopical or a macroscopical diagnosis</li> </ol>
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Transversal Competencies	<ol style="list-style-type: none"> <li>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.</li> <li>2. Involvement in continuous professional improvement by training of critical, and rational thinking highlighted by active participation in the course and laboratory/seminar/project.</li> <li>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).</li> <li>4. Efficient utilization of information sources, communication and assisted professional improvement resources (internet portals, professional software applications, databases, online courses etc.) in English.</li> </ol>
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#### 7. Disciplines/Course objectives (based on the key competences)

7.1 Disciplines/Course general objectives	<ul style="list-style-type: none"> <li>• To provide knowledge, skills and experience needed for understanding the morphological substrate of diseases, the terminology used in anatomical pathology and to know the way in which a pathological process can impact the structure and function of systems and/or organs of the human body, all of them having subsequent clinical manifestations.</li> </ul>
7.2 Disciplines/Course specific objectives	<ul style="list-style-type: none"> <li>• Knowledge and understanding of theoretical and practical aspects of pathology with direct applications in the medical field.</li> <li>• 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.</li> <li>• Development of medical reasoning/thinking pertaining to the positive diagnosis and differential diagnosis of diseases.</li> <li>• Knowledge of grading and staging methods for cancer.</li> <li>• Knowledge of the role of the tumor markers in the diagnosis, therapy and prognosis of cancer.</li> </ul>

#### 8. Content

8.1 Course	Teaching method	Number of hours	Notification
<b>1. The relationship between clinician and pathologist – good practices – part 1</b>	<ul style="list-style-type: none"> <li>• Means: interactive communication + problematization + debate</li> <li>• PowerPoint presentations with representative images of the multiple macroscopic and microscopic aspects of pathological processes (lesions) in the attempt to explain the structural alterations. The material is continually revised in order to incorporate the latest information in the field of pathology.</li> </ul>	1	
<b>2. The relationship between clinician and pathologist – good practices – part 2</b>		1	
<b>3. Tumors: general aspects, pathological classification.</b>		1	
<b>4. General principles in the grading and staging of cancer</b>		1	
<b>5. Tumors: Serum and tissue tumor markers with diagnostic, prognostic and predictive values</b>		1	
<b>6. The importance of cytological diagnosis in tumoral and non-tumoral pathology. The Bethesda system terminology</b>		1	
<b>7. The technique of obtaining cytological smears and cell blocks.</b>		1	
<b>8. Digital pathology in anatomic pathology laboratory practice</b>		1	
<b>9. Breast cancer: Classification of breast tumors according to classical parameters.</b>		1	
<b>10. Breast cancer: Prognostic and predictive factors. Assessment of ER, PR, HER2 markers in breast cancer</b>		1	
<b>11. Premalignant and malignant lesions of the large bowel: Clinical, endoscopic and pathological aspects</b>		1	
<b>12. Premalignant and malignant lesions of the large bowel: TNM staging of colorectal cancer. Prognostic and predictive factors. Therapeutic principles, according to the clinical stage and molecular biomarker assessment</b>		1	
<b>13. Bethesda system for cervical cytology</b>		1	

<b>14. Therapeutic implications of the molecular classification of the uterine body and ovarian malignant tumors</b>		1	
<b>Mandatory references:</b> <ol style="list-style-type: none"> <li>1. Dema A., et al.- General Morphopathology, "Victor Babeş" Publishing House, Timisoara, 2019, electronic version, ebook.</li> <li>2. Dema A., et al.- Special Morphopathology, "Victor Babeş" Publishing House, Timisoara, 2022, electronic version, ebook.</li> <li>3. Courses in the form of PowerPoint presentations available on the Moodle e-learning platform, for third-year general medicine students.</li> <li>4. Laboratory protocols and practical works in the form of PowerPoint presentations, available on the Moodle e-learning platform, for third-year general medicine students.</li> </ol> <b>Optional references:</b> <ol style="list-style-type: none"> <li>1. Kumar V., Abbas A.K., Aster J. - Robbins &amp; Cotran Pathologic Basis of Disease, 10th ed, Saunders Elsevier, 2020</li> <li>2. Strayer D.S., Saffitz J.E., Rubin E. - Rubin's pathology, 8th ed, Lippincott Williams &amp; Wilkins, 2019.</li> </ol>			
8.2 Seminars/ Laboratory/practical activity/ projects	Teaching-learning, methods	Number of hours	Notification
1 Clinical cases presentations related to the theme of course number 1	<ul style="list-style-type: none"> <li>• Explanation on how to interpret a histopathological diagnosis.</li> <li>• Clinical cases with anatomico-clinical and laboratory testing correlations.</li> </ul>	1	
2. Clinical cases presentations related to the theme of course number 2		1	
3. Clinical cases presentations related to the theme of course number 3		1	
4. Clinical cases presentations related to the theme of course number 4		1	
5. Clinical cases presentations related to the theme of course number 5		1	
6. Clinical cases presentations related to the theme of course number 6		1	
7. Clinical cases presentations related to the theme of course number 7		1	
8. Clinical cases presentations related to the theme of course number 8		1	
9. Clinical cases presentations related to the theme of course number 9		1	
10. Clinical cases presentations related to the theme of course number 10		1	
11. Clinical cases presentations related to the theme of course number 11		1	
12 Clinical cases presentations related to the theme of course number 12		1	
13. Clinical cases presentations related to the theme of course number 13		1	
14. Clinical cases presentations related to the theme of course number 14		1	

**9. Correlations between the content of the course and the requirements of the professional field and relevant employers**

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

Activity	10.1 Assessment criteries	10.2 Assessment methods	10.3 Percentage of the final grade
10.4 Colloquim		PowerPoint presentation of a particular clinical case	100%
10.6 Minimum performance standard-basic knowledge			
<ul style="list-style-type: none"> <li>- Knowledge of the principle of the international classification of diseases according to the WHO</li> <li>- Knowledge of the precept of tumor marker</li> <li>- Knowledge of the tumor markers with predictive and therapeutical monitoring value</li> <li>- Knowledge of the molecular classification of breast cancer</li> <li>- Knowledge of the assessment of the ER, PR, HER2 markers in breast cancer</li> </ul>			

Date 23.04.2025	Signature of the course holder Lecturer Vaduva Adrian Adrian Ovidiu Vaduva <small>Digitally signed by Adrian Ovidiu Vaduva Date: 2025.04.27 21:00:38 +03'00'</small>	Signature of the laboratory/seminar holder Lecturer Vaduva Adrian Adrian Ovidiu Vaduva <small>Digitally signed by Adrian Ovidiu Vaduva Date: 2025.04.27 21:01:06 +03'00'</small>
Signature of the Head of Discipline Prof. Dr. ALIS DEMA		
Date of approval in the Department 28.04.2025	Signature of the Head of Department Prof. Dr. DEMA ALIS 	